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COMPENDIUM

OF 1778

DR. T. BROWN'S PHILOSOPHY

OF THE

HUMAN MIND.

BY JAMES PARKINSON BOYLE,

RESIDENT MASTER, T.C.D.

IN TWO PARTS,

CONTAINING THE SUBSTANCE OF THE TWO FIRST VOLS.

CHIEFLY INTENDED FOR THE USE OF THE STUDENTS OF
THE UNIVERSITY.

NEW EDITION,

NTAINING THE SKETCH OF THE PHYSIOLOGY OF THE
MIND, UNABRIDGED.

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PREFACE.

It has often been a subject of regret, that Dr. Brown's Philosophy of the Mind should have come before the public in no other shape than that of lectures for oral delivery. Oral lectures naturally require much repetition, which, although unavoidably necessary to render them intelligible to an *auditor*, is mere surplusage and redundancy to a *reader*; it increases the expense of a book, while it diminishes its utility. Besides, a public lecturer finds it useful to enliven subjects of a serious and abstruse nature, by the introduction of light, extraneous matter and poetical embellishments, which serve to relieve the attention of an audience, but not to assist an inquirer. Induced by these considerations, the Author of this compendium has ventured to attempt what abler hands have left undone, to divest Brown's Physiology of the Mind of the repetitions and embellishments which fitted it for the ear rather than the eye, to give not a skeleton, but the entire body of the work, only stripped of its ornaments—to lay before the public every particle of information contained in the fifty-one Lectures which treat of the physiology of the mind—to change nothing in the thought, diction, or arrangement—to omit nothing which could elucidate the science, but everything which might distract the attention.

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A saving of time—a diminution of expense—but no diminution of utility—such, it is hoped, probably too presumptuously, will be the recommendations of this compendium to the notice of the general reader.

The Students of our University also will, it is hoped, find it useful. Brown's 'Sketch of the Physiology of the Mind,' a part of the College course, being out of print, is generally unattainable. The compendium will, it is hoped, supply the deficiency. *No portion of the Sketch is omitted.* Every passage relating to the subject, which is not incorporated in the body of the compendium, will be found in the Addenda. For the Students' sake also, there are added nearly 600 questions, of which number one-half are taken from the Fellowship and Moderatorship examinations. The reference annexed to each question shews the page, and part of the page, where the answer occurs.

The Author cannot conclude without mentioning how much he is indebted to the Rev. Mr. TODD, F.T.C.D., as well for the ready kindness with which he permitted him to insert the questions collected in his Calendar, as for a valuable suggestion of which he availed himself. For these and many other marks of his kindness and friendship, the Author returns his sincerest thanks.

COMPENDIUM
OF
BROWN'S PHILOSOPHY
OF THE
HUMAN MIND.

LECTURE I.

INTRODUCTION.

The subject of Doctor **Brown's** treatise is the philosophy of the human mind—not that speculative and passive philosophy only, which inquires into the nature of our intellectual part, and the mysterious connexion of this with the body which it animates, but that practical science which relates to the duties, and hopes, and great destinies of man; and which, even in analyzing the powers of his understanding, and tracing all the various modifications of which it is individually susceptible, views it chiefly as a general instrument of good. So Seneca says, 'Philosophy is that which forms and fashions the soul, which gives to life its disposition and order, which points out what it is our duty to do, what it is our duty to omit.'

The great practical object of all philosophy is thus to increase the happiness and virtue of the human kind. But the greatness of this primary object fixed too exclusively the attention of the *moral* inquirers of antiquity, who neglected the consideration of man's intellectual nature, as though it were an object of mere physical science; hence, they have scarcely left us a single analysis of the complex phenomena of thought and feeling. Some of them, indeed, especially the Peripatetics and Stoics, employed much dialectic subtlety in distinctions that may at first seem to involve such an analysis, but these distinctions are merely verbal, or little more.

Though Greece and Rome neglected the cultivation of mental analysis, they yet enriched that department of the philosophy of the mind which relates to practical ethics by the most splendid and sublime moral speculations, and it is not wonderful that in ages and countries where no revealed will of Heaven pointed out the one unerring rule of right, those who endeavoured to trace and ascertain such a rule, in the moral nature of man, should deem all other mental inquiries comparatively insignificant. But in the period which succeeded the classic ages, centuries of long and dreary ignorance were followed by others of futile labour equally long and dreary, when no beautiful moral speculations compensated the poverty of intellectual science; when the most important questions with respect to the mind were whether its *essence* were distinct from its *existence*: whether, therefore, its essence might subsist when it had no actual *existence?* and others of the same degree of utility.

These frivolous disputes are hushed for ever, and we have, at last, arrived at the important truth, that the mind is to be known best by observation of the series of changes which it presents, and of all the circumstances which precede and follow these; that in attempting to explain its phenomena, therefore, we should know what these phenomena are; and that we might as well attempt to discover by logic, unaided by observation and experiment, the various coloured rays that enter into the composition of a sun-beam, as to discover by dialectic subtleties, *a priori*, the various feelings that enter into the composition of a single thought or passion.

The philosophy of the mind, in its most extensive sense, divides itself into four departments, viz.—1st. *The physiology of the mind.* 2nd. *The doctrine of general ethics* as to the obligation under which man lies to increase and extend as widely as possible the happiness of all that live. 3rd. The *political doctrines* as to the means which enable him, in conjunction with his fellow members of society, to further most successfully the happiness of all. And 4th. The doctrines of *natural theology.*

Mental physiology is the science of the mind, considered simply as a substance possessing certain qualities, susceptible of various affections or modifications, which existing successively as momentary states of the mind constitute all the phenomena of thought and feeling. It points out the general circumstances in which these changes of state succeed each other, *i. e.* the laws of their succession, and arranges the phenomena in various classes according as they resemble each other in the circumstances that precede or follow them, or in other circumstances of obvious analogy. As in the physiology of the body we trace, by *observation* and *experiment*, the series of changes that take place in the material part, so in mental physiology, by observation, and in some measure by experiment also, we trace the series of changes that take place in the mind. By *generalizing* we reduce the innumerable changes, mental and corporeal, to a few classes, and speak of the mind's functions or faculties of perception, &c. as we speak of the body's functions of respiration, &c.

But in one very important respect the inquiries relating to the physiology of the mind differ from those which relate to the physiology of our animal frame, *we do not know all that is to be known of the mind when we know all its phenomena;* when we know that man has certain affections and passions, there still remains the great inquiry as to the propriety of those passions and of the conduct to which they lead. Thus, every enjoyment and every evil which man can confer or inflict on man become objects of two sciences, 1st.—Of that intellectual analysis which traces the happiness and misery in their various forms and sequences as mere phenomena, or states of the substance—mind. 2nd. Of that ethical judgment which measures our approbation and disapprobation. As to the third department of the philosophy of the mind, viz. the political doctrines of the means best calculated to produce the greatest amount of social good, its value will appear by considering that knowledge is so essential, if not to virtue, at least to all the *ends* of virtue, that without it, benevolence itself, when accompanied with power, may be as destructive and desolating as intentional tyranny. This political department, which is in truth only a sub-division, though a very important one of general practical ethics, comprehends inquiries as to the relative advantages of different forms of government, and of the various contrivances which legislative wisdom may have established, or may be supposed to establish, for the happiness and defence of nations.

LECTURE II.

Previous to entering on the consideration of mental physiology, Dr. Brown illustrates the *advantages* which the study of the mind affords, and the *principles of philosophizing* in their peculiar application to it, in order to prepare his pupils both for appreciating better the importance of his subsequent inquiries, and for prosecuting them with greater success. To prove *that a right view of the science of mind is* essential to every other science, he considers one very obvious distinction of the physical investigations of mind and matter, namely, that in intellectual science the *materials* on which we operate, *the instruments,* and the *operating agent* are the same—the mind itself. While in the physics of matter, though there also, *it is the mind which observes, confirms, and classifies,* yet the phenomena are those of a world existing independently of the mind, and presenting them in circumstances over which we have little or no controul. Hence, two evident consequences follow; first, the comparative facility with respect to external circumstances attending the study of the mind, which requiring neither costly apparatus nor tedious waiting for seasons of observation, can be pursued in every situation; and secondly, and more especially what we mentioned above, how essential the science of mind is to every other science, and how vain it would be to expect that any branch of the physics of mere matter could be cultivated to its highest degree of accuracy and perfection, without a due acquaintance with the nature of that *intellectual medium* through which alone the phenomena of matter become visible to us, and of those *intellectual instruments* by which the objects of every science alike are measured, and divided, and arranged. As well could we hope to discover the colour of an object, viewed through an optical glass, if we paid no attention to the colour of the glass itself, *the medium* through which we view it. With respect to the *powers of discovery* all sciences are arts, or the results of an art; the MIND is the artist, employing for the production of new results the known laws of thought, in the same manner, as on other occasions, it employs the known laws of matter. The limits of the MIND'S powers are the real limits of all sciences. To the philosophy of the mind every speculation in every science has relation as to a *common centre*, for science is not the *existence* of the inanimate bodies around us, but the *principle of thought itself*, variously modified by them, which, as it exists in different states, constitutes the knowledge which we call astronomy, chymistry, &c. *e.g.* Planets revolving round the sun are not astronomy, but only the occasions on which astronomy arises in the mind of the inquirer, man; the object affects the sentient mind, but it is the *original susceptibility* of the mind itself which determines and modifies the particular affection, as the impression of a seal depends not on the form of the seal alone, but also on the softness of the wax. It is the mind which *perceives* bodies, which *reasons* on their apparent relations, which *joins* them in thought as similar however distant they may be in space, and these *perceptions*, *reasonings*, and *classifications* of the mind must be regulated by the *laws of mind*, which mingle in their joint results with the *laws of matter*. As an example that a change in the laws of mind would produce a change in the nature and limits of science, just as much as a change in the laws of matter could, he supposes a race of blind people to whom astronomy could be but a sort of chymistry, since day and night would merely become periodical changes of temperature. In fact, science, which he defines *a classification of relations*, must differ when the relations themselves differ.

That a change in the laws of thought, however it might affect the *nature* and limits of physical sciences, would greatly affect their progress, appears by considering what human discovery depends on. The progress of science is only a series of individual discoveries, and the number of these varies with the powers of the individual intellect. For example, if all men had the mental powers of Newton, the state of all sciences would be different from what it is, though the phenomena remained the same as they are now.

But, to this view of the important relation of the philosophy of the mind to other sciences, it may be objected that there are many men eminent as astronomers, chymists, &c. who have never made the mind their study. Brown admits this, but he observes in answer, that the *general principles* of philosophizing had become familiar to them without study; but those general principles are not less the effects of an improved physiology of the mind, any more than astronomy and chymistry have less reason to be considered sciences, because, by the general diffusion of knowledge in society those who never professedly studied either have become acquainted with many of their most striking truths: for truths diffuse themselves gradually, being at first admired and adopted by a few who are able to compare the present with the past, and who gladly own them as additions to their former knowledge—from these they are communicated to a wider circle who receive them without discussion as familiar and long known—at length they become so nearly universal as almost to seem effects of a natural instinctive law of human thought, like the light which we at first refer to the sun because it flows directly from him, but which when reflected from object to object ceases, at length, to remind us of its origin.

The origin of those better plans of physical investigation, which have distinguished the present and immediately preceding ages with many glorious discoveries *is attributable to improvements in the philosophy of the mind*, seeing that those valuable rules of physical investigation discovered by Lord Bacon, were derived by him from simple views of nature in relation to our faculties of discovery. But it is not to the improved philosophy of mind that we generally attribute the improvement in physics, because Bacon's rules of philosophizing, being rules of *physical investigation* only, remind us of the physical errors that preceded them, and not to the false theories of mind which gave rise to those errors.

Dr. Brown exemplifies the influence which errors respecting the mere phenomena of mind had on the cotemporary systems of general physics, and on the spirit of the prevailing plans of philosophical inquiry by noticing the effects of one fatal error, namely, the belief of the schools in the separate existence, or *entity*, of the various orders of universals, and the mode in which they conceived every *acquisition of knowledge* in reasoning to take place, viz. by the *intervention of certain intelligible forms* or species existing, not in external things, but separately *in the intellect* itself, as the direct objects of thought: in the same manner as they ascribed simple perception to the action of species of another order, termed, *sensible species* (the images of things derived from external objects, but existing independently of them.) The scholastic mode of philosophizing, therefore, was by no means absurd, when taken in connexion with the scholastic philosophy, since those who believed that singular objects afforded no real knowledge, which could only be obtained from those intelligible species existing *within* the intellect itself, would have thought it absurd to seek for knowledge in the consideration of external objects.

Hence it appears, that in past ages the philosophy of the mind exercised considerable influence on general science. But has it no influence now? This advantage, at least, arises from our present juster views of mind, that they protect us from those gross errors of inquiry to which philosophers were so long exposed, and it is possible that we may still be labouring under other errors in our plans of physical investigation, from which views of mind still juster would deliver us, since it is no proof of the non-existence of those errors to assert that we are not conscious of their existence; this would be to suppose us aware of the errors that mislead us. Scotus, and Aquinas, and the other scholiasts fancied their methods of physical investigation as free from errors as we do ours. And though the great discoveries of latter years leave no doubt of the superiority of our modes of philosophizing, still this does not show that subsequent improvements of the philosophy of the mind are to be unavailing, but it rather affords strong presumption that if one mental improvement, namely, *the better understanding of the simple process of abstraction*, has done so much, clearer views of all the intellectual processes concerned in the discovery of truth would lead to still juster views of the process of philosophizing. He particularly alludes to one intellectual process, namely, that by which we acquire the knowledge of the relation of *cause and effect*, on which relation all physics is founded. A false and mysterious view of causation has led to the invention and ready admission of many absurd and complicated physical hypotheses even in the present day. This will be considered at large hereafter.

LECTURE III.

The *study of the limits of the faculties of the mind*—so important, as Locke shows, in directing our thoughts and inquiries to *objects within our reach*—has been misrepresented as favouring a tendency to scepticism. Nothing can be more unfounded. The names most admired for throwing light on the powers and weaknesses of the human understanding are also those we have been accustomed to revere for excellence of a still nobler kind. On the contrary, this study is the surest preservative from the danger of such a tendency, since he whose eyes are clearest to distinguish the circle which bounds truths that are attainable from those which are not, cannot be the dullest to perceive the truths that are within. To know how to doubt is only the first step of philosophy, the true philosopher also knows how to believe, believing what is evident on the same principles which lead him to doubt what is not. To conceive that inquiry must lead to scepticism, is itself a species of scepticism as to the *power* and *evidence* of the principles to which we assent, and more degrading because more irrational than open and consistent scepticism would be.

But it is not from the danger of scepticism alone that a just view of our nature saves us, but also from dogmatism; because, while it shows us enough of our strength to allow us to rest with confidence on the great principles, physical, moral, and religious, it also teaches us enough of our weakness to render us indulgent to the weakness of others, by showing that while nature has made provision for the universal consent of mankind to *fundamental truths*, she has left them together with principles of improvement, a susceptibility of error, without which there could be no progression; and in tracing back the circumstances that modify our own individual belief we learn the various sources of prejudice, and consequently, of difference of opinion in the various situations of life; 'to feel anger at human error,' says Seneca, 'is to be angry with those who stumble in the dark . . . . . the true art of learning to forgive individuals is to learn first how much we have to forgive the whole human race.'

Ignorance of the nature of the mind led, in dark ages, to a persecuting spirit; judging from our own momentary feelings, without knowledge of the general nature of belief and of all the principles of our mental constitution, by which it is diversified, we look on the dissent of others as wilful and obstinate contrariety; this persecuting spirit, arising from ignorance, is usually aggravated by degrading notions of the Deity, and false impressions of religious duty. On the contrary, science of the mind makes us tolerant, as well by showing the *absurdity* of endeavouring to overcome, by punishment, a belief which does not depend on suffering, as by showing the injustice of it, since our nature is common in all the principles of truth and error with those we endeavour to oppress, and power has been, in all ages, the most obvious distinction between the persecutor and the persecuted. The more important the subjects of difference the greater will be the indulgence of him who has learned to trace the sources of human error, which often has its origin in the most virtuous affections of the heart—in respect for age, admiration of virtue, and gratitude for kindness received; for these, in our early years, make the opinions of those whom we love and honor seem as little questionable as their virtues.

Hitherto we have considered the influence of an acquaintance with the philosophy of the mind on the general spirit of philosophical inquiry. The advantages, in every science from a knowledge of the extent of the power of the intellectual instruments which we use for the discovery of truth; the skill we thence acquire in distinguishing questions, where we may hope to discover truth, from those beyond the reach of our faculties; and the consequent moderation of temper with which we regard our own attainments, and other people's errors.

Besides these general advantages, extending to all inquiries of which the human mind is capable, there are peculiar advantages in those sciences where mind operates on mind, namely, education, criticism, poetry, eloquence, where the desired effects will be more readily produced by knowing the natural laws of thought and emotion; what feelings lead to other feelings which we wish to produce. *This knowledge* constitutes the whole art of criticism, in its most important applications—it is the knowledge of nature, which is as essential to the critic as to the writer whom he judges. However, Pope's celebrated lines

> "Let such teach others, who themselves excel,
> And censure freely, who have written well."
>
> *Essay on Criticism.*

go too far, for the poet requires *an inventive fancy* to bring together thoughts and images which have never before been combined; and also, a *discriminating judgment*, which determines the intrinsic beauty and fidelity to general nature, of the products of invention; the latter only, viz. the discriminating judgment, is requisite to the critic.

The knowledge of the intellectual and moral nature of man is still more important to education, the true science of which is the philosophy of the human mind, applied practically to the human mind—the art of seeing, not only the immediate effect, but the series of effects which may follow any thought or feeling,—to draw virtue often from apparent evil, and avert evil which may arise from apparent good.

LECTURE IV.

In addition to those *intellectual advantages*, the study of the science of mind produces some *moral effects* on the inquirer, viz. the *benefit from* tracing and contrasting the effects, immediate and remote, of virtue and vice. The impressions of love and disgust thus formed, though without reference to ourselves, will yet have an influence on our future conduct, like that of the example of our associates, to which, though not perceived at any particular time, we are every moment subject. Seneca compares this effect of moral conceptions to that of approaching light or precious odours; we derive always some faint colouring from the one, and some fragrance from the other. This influence of moral conceptions arises from the associating principle.

The study of moral science tends, in two respects, to strengthen the admiration of virtue, and abhorrence of vice. First, by tracing, more accurately, their consequences. Secondly, by associating virtue with happiness, and vice with misery. Besides, the abstract consideration of virtue, as opposed to the miseries of vice, has this advantage, that we behold them as they are, stripped of every thing that can blind or seduce us; passion, in the moment of gratification, conveys a short and illusive pleasure, though the after effect may be pain; therefore, it is important to contemplate it at other moments, when the images associated with it, may not be those of the transient pleasure. Hence, by contemplating not only the immediate but also the remote results of the passions and affections, we learn to regard virtue and vice as sources, not of temporary, but of permanent happiness and misery.

Besides thus strengthening our attachment to the virtues which we habitually contemplate, the study of moral science *increases our devotion* and gratitude to the Deity, by clearer manifestations of his goodness, in the constitution and government of the moral world; because, though the inanimate universe might lead us to *admire* him for his power and wisdom, it is only by considering beings, capable of knowledge and happiness, that we are excited to *love* him for his benevolence.

Another advantage derived from this study of mind is politeness, which is nothing more than a knowledge of agreement or disagreement without comparison. In the words of Lord Bacon's great primary aphorism, Homo naturæ minister et interpres tantum facit et intelligit quantum de naturæ ordine re vel mente observaverit; nec amplius scit aut potest.

The question, 'What is it we truly mean when we inquire into the nature of any substance?' is a most important one, from misunderstanding the purport of which arose all the waste of labour in the inquiries of the scholiasts. Two very different answers may be given to it, according as we consider the substance; first, as *existing in space*, or, secondly, as *existing in time*. In the first case, we enumerate the constituent parts of the substance, and consider it, merely, as it exists alone, without regard to any other bodies that may exist round it or near it, and without any allusion to *change* of any kind. In this sense, the answer to the question, 'What is glass? would be, that it is a compound of alkaline and silicious matter, meaning that particles of alkali and flint co-exist, and are apparently (*i. e.* with regard to *our feelings*,) continuous.

In the second case we think only of the *changes* in reference to which it is the agent or object. In this sense the answer to the question, What is glass? would be, that it is a transparent substance, which, according to the general laws of refraction, bends the light that passes through it variously, according to the different density of the medium through which the rays have immediately passed before arriving at it; that it is fusible, &c. and we may add to our description as many qualities as there are substances which produce in it any change, or are in any way changed by it. In answers of this latter kind, reference is made not to the mere substance itself, but to some other substance with which, in consequence of some motion of one or other of the bodies at the time of the phenonenon of which we speak, it has changed its relative position.

Any inquiry concerning *matter* must have reference to one of these two aspects, or else it is without an object. As it exists in space we inquire into its *composition*, i. e. the *elementary bodies* that co-exist in the space which it occupies and which are all we truly consider, when we think we are considering the compound as one body. As it exists in time we inquire into its *susceptibilities* or its *powers*, i. e. we trace the series of prior and subsequent changes of which its presence forms an intermediate link.

Brown proceeds to make some remarks on those two different objects of inquiry in the physics of matter, because these remarks tend to illustrate the inquiries to be pursued in the physiology of the mind, and the acquiring more precise notions of the objects of any one science leads us to more precision in our notions of every other. This, by the way, is one of the reasons why the study of geometry is so useful, *this diffusive tendency* of its spirit, almost as much as its own sublime truths, and the important application of these to general physics, has been of inestimable advantage to science. As Fontenelle has remarked, 'the spirit of geometrical inquiry is capable of being applied to other branches of knowledge,' he attributes the order, the clearness, and the precision, which latterly distinguished works of excellence, to the prevalence of a mathematical turn of thought, which gradually communicates itself even to those who are ignorant of mathematics. The glory of effecting this he ascribes to Des Cartes, who had less claim to it than Bacon had; but Bacon's writings were not much known in France in Fontenelle's time. Des Cartes, however, is a very striking instance of the diffusive influence of the general spirit of scientific inquiry; as all that was sceptical in his system still continues to operate beneficially, while all that was dogmatical has long since disappeared. But to return,

When we inquire into the composition of a substance, we consider that as *one* which really consists of an infinite number of substances which have not the less independent existence on account of their close proximity. Their unity is no absolute quality of the mass, but is only in *relation to our conception*, and arises from the imperfection of our senses which cannot perceive the spaces that divide the innumerable separate atoms of a body, which, on that account, we regard as one. To inquire, then, into the composition of a body, is to inquire what the separate bodies are which are ranked by us as one from their apparent continuity. The unity we see is purely mental, not merely as being a feeling of the mind, for in this sense our knowledge of the qualities of external things is equally mental, but, as having its cause and origin in the nature of the mind itself, the intellectual medium communicating something of its own to every thing that passes through it, as light is tinged in passing through a coloured glass. As Bacon says, omnes perceptiones tam sensus quam mentis sunt

ex analogiâ hominis non ex analogia universi; estque intellectus humanus instar speculi inæqualis ad radios rerum qui suam naturam naturæ rerum immiscet eamque distorquet et inficit.

To dissipate that imaginary aggregate, and show us the separate bodies which occupy its space, and are all that nature created, is the business of the analytic art of chymistry, which thus has its origin in the imperfection of our senses, so that analysis is, in fact, the art of the blind. Our curiosity, and the badness of our eyes, are the foundations of philosophy, according to Fontenelle, who compares philosophers examining nature to spectators at an opera, where Phæton is represented carried off by the winds. The Pythagorases, Platos, &c. being ignorant of what is going on behind the scenes, and unable to perceive the cords to which he is attached, endeavour to account for his flight by their different systems. It is a secret virtue, says one, that carries off Phæton. Phæton is composed of certain numbers which cause him to ascend, says another: . . . . At last, Des Cartes, and some other moderns, say, Phæton ascends, because he is drawn up with cords—thus, to see nature as she really is, is to see the back of the stage at the opera. Brown agrees with Fontenelle, that in the first of the two lights in which matter may be viewed, (as it exists in space,) philosophy is only an attempt to repair, by art, the badness of our eyes.

LECTURE VI.

The sort of knowledge of matter, which, with our imperfect senses, we are capable of attaining, is astonishing, since what we think we know is an aggregate of many bodies, of each of which, individually, we are ignorant, though the aggregate which we know has no real existence, but as that multitude of bodies of which we are ignorant. Yet strange as this knowledge is, it does not justify the doubts of the sceptic, since, though the co-existing elements be separately unknown, yet their *joint effect* is certain and definite, and it is this joint effect of the whole which is the true object of our knowledge. In this, as in every other case, the divine wisdom is apparent, which suits our powers to our necessities, since it is with the masses, not the elements, we are concerned in all the important offices of life.

Since the mind is not composed of parts that co-exist, but is simple and indivisible, as are also its thoughts and feelings, which are, in truth, nothing but the mind itself existing at certain moments in certain states, it might seem that this first kind of inquiry (as to the composition) is altogether inadmissible in the philosophy of the mind; yet, in consequence of the wonderful laws which regulate the successions of our mental phenomena the science of mind is, in all its most important respects, a science of analysis, or at least, a science which exhibits to our contemplation the same results as if it were strictly analytical.

In the second great department of physical investigation, it is not (as in the first) the imperfection of our senses, which makes inquiry necessary; the elements of a body are always before us, if we could but see them; but the most perfect senses could only show us how body exists at the *present* moment, and not how it *might have* existed, or *may* exist, in all possible circumstances of combination with every other substance in nature, *i. e.* its susceptibilities and powers, (he uses the term *susceptibility* instead of Locke's word passive power, to avoid the contradiction, or ambiguity, which may arise from annexing the term passive to a word which signifies the cause of change.)

If there were any thing in the mere appearance of a body that would enable us to predict the *changes*, which, when brought into every variety of situation with other bodies, would take place in it or in them, then the two views of physical inquiry would coincide, so that to know the elements of a substance, would be to know its powers and susceptibilities; but we have no such clue, *e. g.* who could infer from the similar appearances of a lump of sugar and of calcareous spar, that the one would melt in water, the other not? these things can only be learned by experience.

Locke, therefore, and other ingenious philosophers err, in supposing that if we knew the intimate structure of bodies, we should see not merely *what* corpuscular changes take place in them, but *why* they take place, and so be able to predict them before experience. 'I doubt not,' says Locke, 'but if we could discover the figure, size, texture, and motion of the minute constituent parts of any two bodies, we should know, *without* that the moving ball should merely stop? It is because we have witnessed it that we know the effect is different, and not because the laws of motion, or any mechanical affections of matter, could be predicted before observation.

Experience, therefore, is as necessary to determine the mutual affections of atoms as of masses. But the object of physical inquiry being, not to know a change which has taken place, but the similar changes which will take place as often as the objects are again in the same circumstances, experience alone is not sufficient, since it only teaches us the past, but not the similarity of the future; the *phenomena,* not the *powers,* by which they can be produced. The expectation, then, of the similarity of the future to the past—this belief, that the same antecedents will be invariably followed by the same consequents, since it cannot be derived from experience itself, is an original principle of our nature, an instinctive tendency, but yet not more mysterious (though the term *instinct* is supposed to imply mystery,) than the tendency in any of our simplest successions of thought to exist in certain states, after existing in certain other states, *e. g.* the tendency to perceive the sensation of sound after having the nerves of hearing affected in a particular manner. All we know, in both cases, is, that these successions regularly take place, and in the regular successions of nature, which could not, in one instance more than another, have been predicted without experience, nothing is mysterious or every thing is mysterious.

Hume attempts to show that the belief of the similarity of future sequences of events is reducible to the influence of custom, without the necessity for any intuitive expectation; but he fails to prove it. Custom may account for the mere suggestion of one object by another as part of a train of images, but not for the belief of future reality.

In examining the physical succession of events, the object of inquiry is really nothing more than the mere series of regular antecedents and consequents, and not anything of a more mysterious nature, which can be supposed to intervene and connect them by some invisible bondage; for if any thing else intervened, it would itself be a part of the train. This, then, is the only intelligible meaning of the three most important words in physics—power, cause, and effect. *Immediate invariable antecedence* is power; the *immediate invariable antecedent* in any sequence, is a cause; the immediate invariable consequent is the correlative effect, *e. g.* to say that water has the power of dissolving salt, and to say that salt will always melt when water is poured upon it, are precisely the same thing. All that we mean when we ascribe to one substance a *susceptibility* of being affected by another substance is, that a certain change will uniformly take place in it when that other is present, and in ascribing to one substance a *power* of affecting another, we can only mean, that when it is present a certain change will uniformly take place in that other substance.

In favour of this theory of causation, Brown—Frst *appeals to our reflection*, 'when a spark kindles gunpowder, every one ascribes to the spark the *power* of observation of change to believe that when similar circumstances recur, the changes observed will recur in the same order, and hence we conceive a permanent relation of one event as invariable antecedent to another as invariable consequent. Power is not, then, any thing that can exist separately from a substance itself, but is merely that substance in relation to some other, just as *form* is nothing separate from the atoms of a mass, but is merely the relation of a number of atoms co-existing in apparent contact. The form of bodies being the relation of their elements to each other in space, a relation of immediate proximity, and the power of bodies being their relation to each other in time, a relation of immediate and invariable proximity, and both form and power, if considered separately from the number of elementary corpuscles and from the changes that arise successively, being equally abstractions of the mind, and nothing more. We have seen before, that an error, with respect to the nature of abstraction, is one of the principle causes that retard the progress of philosophy. We give a name to some common quality of many substances, and then we suppose that there is in it something real, because we have given it a name, and we strive to discover what that is in itself, which in itself has no existence. The genera, and species, and whole classes of universals of the schools presented a striking example of this error. Power and form present examples just as striking.

There are in nature only substances, and all the substances in nature are every thing that truly exists in nature; there is no additional power separate or different from the antecedent itself, more than there is form separate or different from the figured mass, or any other quality without a substance. It is the mere regularity of the successions of events, not any additional and more mysterious circumstance, denoted by power, that gives its value to physical knowledge, since, in consequence of this known regularity, we can provide for the future, and even modify the future by arranging the objects over which we have command, so as to form with them the antecedents, which we know will be followed by the consequents we desire.

One of Dr. Brown's arguments in support of his theory of causation formerly adverted to, was derived from his test of the identity of propositions; *the test is this*, when a proposition is true, and yet conveys no additional information, it must be of exactly the same import with some other proposition formerly understood and admitted. Now, to him who knew that a vessel of water placed upon a fire would speedily boil, what additional information would be conveyed by informing him that fire had the *power* of boiling water, that it was the *cause* of the *boiling*, and the boiling its *effect?* Since, therefore, no additional information is given, then, according to the test, to know things as invariable antecedents and consequents, is to know them as causes and effects.

The sources of the mistakes concerning the nature of power are, first, *the influence of abstraction*, aided, and in a great measure perpetuated, by the use of language and common unavoidable modes of grammatical construction, and second, *the imperfection of our* *senses.* For first, we speak abstractedly of the *powers* of a substance or the *form* of a body, as we do of the *students* of a university; and thus we learn to consider the *powers* which a substance possesses as something distinct from the substance itself. In the ancient philosophy the error extended to form also, but no one now regards the figure of a body as any thing distinct from the body itself. The illusion might have ceased with respect to power likewise but for the second cause.

Our senses, being too imperfect to distinguish all the elements of bodies, cannot teach us all the minute changes of these unknown elements; and we, incapable of determining the whole series of internal changes that occur in them, and supposing that it is only between immediate antecedents and consequents that any permanent and invariable relation exists, are constantly on the watch to detect, in the more obvious changes that occur in nature, some of the minuter elementary ones which we suspect to intervene. These minuter changes, when they do actually intervene, are truly what connect the more obvious antecedents and consequents, and the innumerable discoveries which we are constantly making of these intervening minute changes, lead us *habitually* to suppose, that amid all obvious changes there is something latent which links them together, *e. g.* he who hears a violin, if ignorant of the theory of sound, may suppose the touch of the strings by the bow to be the cause of the melody, then he learns that this would be ineffectual but for the vibrations it excites in the instrument. Another discovery shows that this vibration would not do but for the elastic medium interposed between his ear and the instrument, and thus he traces effect after effect; and it is imposible but that *this constant search and frequent detection of causes, before unknown, found thus to intervene between all the phenomena observed by us, will, by the influence of the common principles of our mental constitution, at length associate with the very notion of change, as perceived by us, the notion of something intermediate that as yet lies hid from our search;* and *the expectation of discovering something intermediate and unknown between all known events is thus convertible into the common notion of power, as a secret and invisible tie.*

The power of the Deity even is not any thing different from the Deity himself—it is the Almighty himself willing whatever seems to him good, and creating or altering all things by the very will to create or alter. When we analyze those great, but obscure, ideas which rise in our mind, while we attempt to think of the creation of things, we feel that it is still only a sequence of events which we are considering, though of events, the magnitude of which allows us no comparison, because it has nothing in common with those earthly changes which fall beneath our view. The will of God is the direct antecedent to all those glorious effects which the universe displays; no third circumstance intervenes to constitute the inexplicable efficiency between the will of the creator and the rise of the universe. The supposition of such intervention might diminish, but certainly could not elevate, the majesty of the person and of the scene; our feeling of his omnipotence not being rendered stronger by the slowness of the complicated process. It is from stating nothing more than the antecedent and consequent, in describing the creation of light, that the majestic simplicity of the celebrated passage in the book of Genesis arises.* That being has almighty power whose every will is immediately and invariably followed by the existence of its object.

LECTURE VIII.

The imperfection of our senses has produced three important effects upon our physical inquiries: First, It is the sole cause of the first grand department of physical inquiry about matter, viz. as it exists in space. Secondly, Though not the sole cause of the second grand department of inquiry about matter, namely, as it exists in time, yet, even there, it is the cause of much idle inquiry, by leading us to form wrong notions of power, cause, and effect. Thirdly, It tends to produce a fondness for hypotheses.

The best preservative against too ready an admission of hypotheses is, to know what they truly are in themselves, and what it is which they contribute to the explanation of phenomena.

The habitual detection of elementary changes, previously unperceived, intervening between the more obvious changes of nature, leads us at last, (as was before observed) to suspect such interventions between all perceptible changes; hence we are constantly inclined to inquire, why does it do this?—how does it produce this effect? And the common answer to such questions being the statement of some intervening object or event, the habit of giving such answer to such question leads us to believe that we explain the sequence of two events by stating some intermediate event. In consequence of this belief, when we can no longer state or imagine any thing which intervenes, we feel as if the sequence itself were less intelligible, though, unquestionably, the stating some intermediate circumstance is merely finding a new antecedent in the train of physical events, so as to have now two antecedents and consequents to account for (as we think) instead of one simple antecedent and consequent, and we have thus only doubled our supposed mystery, instead of removing it.

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* And God said let there be light, and there was light.

Since it does appear to us to remove the mystery which it doubles, it has the same effect on our general practice of philosophizing as if it did remove it. We desire to discover the unknown cause which *we suppose* to be intermediate in every phenomenon; when it is not discoverable we feel a strong tendency to divine what it is, and to acquiesce in the certainty of what we have only imagined, always imagining the cause which seems to have most analogy with the observed effect. Thus, that belief which is only an illusion, (that we explain the *supposed* difficulty of some sequence by stating something intermediate) leads us into a love of hypotheses.

Since these hypotheses are founded on mere analogy to something previously observed, it is evident there may be as many hypotheses invented to explain a phenomenon, as there are analogous circumstances observed in nature.

These hypotheses obtain a ready reception, as well because of the *complication* of the phenomena (so congenial to the human mind, which loves the complicated and mysterious) by the intervention of other mysterious sequences, as because of a *false simplification* which aids the illusion of the mystery. This simplification is *false,* because it is not in the phenomena themselves, but only in our mode of conceiving them. An example will illustrate this; even Newton, himself, by his query about ether, shows that he conceived gravitation to arise, not from a *tendency* of bodies towards each other, (this tendency being, according to the simple theory of later philosophers, an original quality of matter,) but by the supposed intervention of oceans of a great ethereal fluid, the current of which *impels* objects towards each other. Here was a false simplification, for it reduced two great classes of phenomena, gravitation and impulse, to one—to impulse; while the oceans of ethereal fluid, supposed to exist, whirling about every object in nature, rendered the phenomena much more complicated.

But though we are too prone to hypotheses, still, it does not follow that hypotheses are useless; on the contrary, taking that wide sense of the word which implies every thing conjectural, they are essential to philosophy in the *first stage* of inquiry; for, as experiments and observations are nearly infinite, experiments at random would be profitless; hence the use of an hypothesis, which in this view of it is nothing more than a reason for making one experiment rather than another. But it is only in the first stage of inquiry that they are essential, as suggesting what is afterwards to be verified or disproved; when the experiments or observations, to which it directs us, do not verify it, we must entertain it no longer, even as an hypothesis. Their use, then, we see, is to direct investigation, not to supersede it; not to tell us what we are to believe, but what we are to endeavour to ascertain.

When we observe a phenomenon for the first time, it is impossible not to think of the analogous cases which we may have met in our past experience, because they are suggested by a necessary part of our constitution—the principle of association. And if any of these analogies strike us as remarkably coincident, it is impossible for us not to imagine that the cause which we knew to be present in the former instance, is also present in the new one, and that they are of the same class. To assume this, without further proof, would be what many systematizers have done, but the sound philosopher acts differently; he, perhaps, assumes the existence of the supposed cause as probable, but he only assumes it to direct his examination of its reality, by investigating what the circumstances would have been, in every respect, if the cause assumed were actually present; and even if these were exactly coincident, he would consider the presence of the cause more probable, but by no means think it certain; and he would still endeavour to lessen the chances of fallacy by watching the circumstances, should they again occur, and varying them by experiment in every possible way. This patience and caution require much self-denial, which is thus as necessary for intellectual as for moral excellence.

There are two great sources of error in our practice of philosophizing—one of these is the tendency of the imagination to form and rest in hypotheses, the second is the too great extension of general laws. Theory is not so widely different from hypothesis as it is commonly supposed; for though it is true to say, that the object of philosophy is to observe particulars, and from these to frame general laws, which we again apply to the explanation of particulars; yet there is an ambiguity in the term *general law.* If it means the agreement in some common circumstances of a number of events observed, we can then, with perfect certainty, apply it to that same number of events, just as after combining in the term *animal,* the circumstances in which a sheep, a goat, and a horse agree, we cannot err in applying the term animal to a sheep, a goat, and a horse. But the only particulars to which we can, with perfect confidence, apply a general law, are those that have been before observed by us. If it be understood as more general than the circumstances observed, and so applicable with perfect certainty to the explanation of new phenomena, every such extended application proceeds as truly on mere supposition as in any hypothesis we could have framed, and though the supposition becomes more probable in proportion to the number of cases generalized, and the absence of any circumstance in the new case which could be supposed inconsistent with it, (or as he says in another place, according as the induction has been wider, and the circumstances of observed analogy more numerous,) yet it never can mount to perfect certainty. Gravitation affords a remarkable instance of this, which after the innumerable facts that prove its *extent*, both in our own globe and in the other planets, yet cannot be, with certainty, applied to distances at which we have no opportunity of making observations; nay, without going to distances immensely great, there are distances to which we know that *attraction* does not extend, since the phenomena of elasticity and impulse show that at very small distances it is actually changed into *repulsion*. Theory, then, admits of *certainty* only when it is applied to the substances observed in the circumstances observed, in which case it is nothing more than the application of a general term to the particulars which we have before agreed to comprehend under it. Whatever is more than this is truly hypothetical; the difference being, that we give the name of *hypothesis* to cases in which we suppose the intervention of some substance, of the existence of which, as present in the phenomenon, we have no direct proof, or of some additional quality of a substance before unobserved; and the name of theory to cases which do not suppose the existence of any substance that is not, or of any quality that has not been actually observed, but merely the continuance, in certain new circumstances, of tendencies observed in other circumstances. But the terms are used very loosely—an hypothesis often meaning nothing more than a theory to which we have not given our assent—and a theory an hypothesis which we have adopted, or still more, one which we have formed ourselves.

In a theory (in that best sense to which it ought to be confined,) there is both *less risk of error*, and *less* *extensive evil from error* than in an hypothesis: *less risk of error*, because we speak only of the properties of bodies that must be allowed actually to exist, and less extensive evil from error, since it must be confined to this single point; whereas, if we were to imagine falsely the presence of some third substance, our supposition might involve as many errors as that substance has qualities, since we should be led to expect some or all the other consequences that attend it when really present. In one respect, however, the too great extension of general laws is more dangerous than hypothesis, because it is the error of better understandings—of understandings that would not readily fall into the extravagance of hypotheses, but acknowledge the essential importance of induction at the very time they are abandoning it for conjecture, from the tendency to convert a general into a universal law.

LECTURE IX.

By the clear and simple explanation of the powers of substances—as being not any thing separate from the substances themselves, and intermediate, but merely the relation of immediate and uniform proximity, which events bear to each other in time, as form is the relation of immediate proximity, which bodies bear to each other in space—Dr. Brown has removed those false notions of occult and unintelligible agency in causes as something different from the mere antecedents themselves, which retarded much the progress of philosophy—both by *habituating* the mind to acquiesce in the use of language to which it truly affixes no meaning, and also, by *misdirecting* its inquiries and leading it from the simplicity of nature, in which every glance is truth, and every step is progress, to bewilder itself with the verbal mysteries of the schools.

But even the philosophers—who perceived that man could never discover any thing in the phenomena of nature but a succession of events in regular series, and who recommend the observation and arrangement of these regular antecedents and consequents as the only attainable objects of philosophy—found this advice on a distinction they make between what they term *efficient* causes, and what they term *physical* causes, namely, simple antecedents. There are, say they, certain secret causes which alone are *efficient,* continually operating before us, and which are all that are truly acting before us, but we must not hope to be ever able to detect any of them; as if the information that what we must study is far less important than what we must omit, were not more powerful to stimulate our curiosity, than any of their prohibitions can be to repress it. Even Newton, by his query about vortices as a way of explaining gravitation, showed that he was not entirely exempt from the error which he wished to discourage—an inordinate love of the unknown.

The laws which regulate physical inquiry in the internal world of thought are, in every respect, similar to those which regulate it as it regards the universe without. For the SAME GREAT OBJECTS are to be had in view, namely, the *analysis* of what is *complex,* and the *observation and arrangement* of the *sequences* of phenomena as respectively antecedent and consequent, and the MODE OF PROCEDURE is the same in both, namely, that omitting all conjectures about the essence of either mind or matter, and having observed the phenomena alone, we proceed to class or generalize them, remembering that the general principles at which we arrive, can only be applied with *certainty* to those very particulars from which we have inducted them, but in their application to other particulars probability only is to be attained, which, though it approaches more or less to certainty in different circumstances, (see page 38,) must always be short of it, even in its nearest approximation.

In this respect, also, the philosophy of *mind* and that of *matter* agree that our knowledge of both mind and matter is *relative*. Matter is the unknown cause of various feelings, which, by the constitution of our nature, it is impossible for us not to refer to something external as their cause. To suppose us to know what it is, independent of our perception, would be absurd, since it is only by our perception, that is to say, by the feelings of our mind, that we can know it at all, and these feelings must depend, at least, as much on the laws of the mind affected, as of the substance which affects it; therefore, our knowledge of matter is only relative. It would still remain so, even if our present number of senses were ever so much increased, since
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out relation to mind. Our definition would comprehend more phenomena, but it would still be a definition of its phenomena only.

Our knowledge of mind is equally relative. We know it only as susceptible of feelings that have already existed. Its susceptibilities of feelings that have not arisen, but that may in other circumstances arise we know as little of as the blind can be supposed to know of colours; or as we, with all our senses, know of the qualities which matter might exhibit to us, if our own organization were different. Of its *essence* we know nothing, therefore, but in relation to the states or feelings which form, or have formed our momentary consciousness. Our knowledge of it is not absolute, but relative. Relative to what?—to those states or feelings which, according to Dr. Brown, are the mind itself, that is to say, our knowledge of the mind is relative to the mind; this is, as he remarks, an unusual application of the term relative, the relative and correlative being the same: but the faculty of *memory* solves the mystery of the paradox, by which faculty our mind, though simple and indivisible, is, as it were, multiplied and extended; without this faculty the relation of thought to thought could not have been perceived, therefore there could not have been any philosophy; this faculty gives us the past to compare with the present, to it we owe that most wonderful of relations of which the same being is, at once, the object and the subject, contemplating itself in the same manner as it casts its view on objects that are distant from it.

The knowledge of mind and matter agree in this respect also, that though both are relative to, and limited by our susceptibilities, yet this neither diminishes their value nor renders their extent (as to the infinity of their *objects,*) less than boundless.

LECTURE X.

All that we truly know of mind and matter is (as has been remarked) the successive phenomena, though by the constitution of our nature it is impossible not to ascribe these to some permanent subject. Matter is the permanent subject of certain qualities, extension, and its consequent—divisibility, attraction, repulsion, that is to say, it is the permanent exhibiter to us of certain varying phenomena which we *observe.* Mind is the permanent subject of certain qualities, or states, or effects of a different class—perception, memory, reason, joy, grief, hate, that is to say, of certain varying phenomena of which we *are conscious.* What matter is—independent of its phenomena, what mind is—independent of its temporary varieties of feeling, it is impossible for us to discover; since whatever new knowledge of matter we can suppose ourselves to acquire, must be acquired by our perception, and therefore must be relative to it, and whatever new knowledge we suppose ourselves to acquire of mind, must be itself a state or affection of the mind, and, therefore, only a new mental phenomenon, to be added to those with which we were before acquainted, as one of the many states in which the permanent substance—mind, is capable of existing.

The absurdity of attempting to inquire into the nature of either, beyond the phenomena, may be shown by supposing that the creator was to alter entirely the absolute *essences* of mind and matter as they exist independently, but so that they should exhibit relatively the same phenomena as at present. Would we be able to discover the change? Surely not. How absurd, then, to think that the changed or unchanged nature of the substances themselves (mind and matter,) as they exist, independent of the phenomena, ever can become known to us.

To the PHENOMENA *alone, then, our attention is to be given,* not to any vain inquiries into the absolute nature of the substances which exhibit them; this alone is legitimate philosophy, which must for ever retain its claim to our assent. Whatever be our speculations or theories concerning the substances themselves, every fact which the immaterialist has accurately observed and arranged, with respect to the influence of habit or association, may, with equal reason, form a part of the intellectual and moral creed of the materialist also. While we confine our attention to the phenomena of mind, the general laws of their succession which we infer, and the various relations which they seem to bear to each other, may be admitted equally by those whose opinions, as to the absolute nature of the feeling and thinking principle, differ fundamentally. As Stewart observes, 'the real philosophy of the mind differs from any fanciful conjectures which may be formed concerning its essence, as much as the inquiries of Galileo, concerning the laws of moving bodies, differ from the disputes of the ancient sophists concerning the existence and the nature of motion,' or, he might have added, as the conclusions of Newton, with respect to the law of gravitation, differ from his query concerning the mode in which he supposed that gravity might be produced: the hypothesis involved in the query we may admit or reject; the conclusions, with respect to the law of gravitation itself, as far as relates to our planetary system, are almost beyond our power of rejecting.

Moreover, it is equally true in mind and matter that we can know the phenomena only as far as we have attended to their sequences, and that without experience it would have been impossible to predict any of their successions; for though Pope in his lines—

> When the proud steed shall know why man restrains
> His fiery course, or drives him o'er the plains.
> When the dull ox—why now he breaks the clod,
> Is now a victim, and now Egypt's God—
> Then shall man's pride and dulness comprehend
> His action's, passion's, being's, use, and end;
> Why doing, suffering, checked, impelled, and why
> This hour a slave—the next a deity!

goes too far, since, from knowing the moral excellence of our Divine Author, we know in a great measure the use and end of our actions and passions, in a *general manner*, as subservient to the plan of infinite goodness; nevertheless, we are not so well acquainted with the particular uses of each state of mind, as to have been able to predict it merely as a part or consequence of the plan. Such, however, is the influence of habit in familiarizing us to phenomena, that we think experience is not necessary, in those cases only in which the power of experience has been most frequently and familiarly felt. In the recurrences of the common mental phenomena we find it difficult to imagine that we could not originally predict what we now predict so readily, and they seem to require no experience for informing us both of their antecedents and consequents, merely because we do not remember the time when we were ignorant of them.

In the philosophy of external matter, the greater or less familiarity of events produces an illusion exactly similar. Some phenomena (*e. g.* the tendency of the magnetic needle to the north rather than to any other point,) we readily admit, could not, without experience, have pointed out to us the changes that preceded or were to follow them, while other more familiar phenomena appear to require no experience; such as the tendency of a stone to fall to the ground rather than upwards.

We have said that the inquiry into the nature of mind as of matter consisted of two branches, the observation of what is successive, and the analysis of what is complex; the former branch of mental inquiry is evidently very important, as it is the *foundation of every intellectual art.* But the application of *analysis* to the mind may appear to convey an absurdity, since the mind itself, and consequently all its *affections*—a term expressing the variety of modes in which it can be affected, and which, therefore, are only *the mind itself as it exists in different states*—must be always simple and indivisible. Nevertheless, in its most important respects, the science of the mind is a science of analysis, or of a process virtually the same as analysis; and it is only, as it is in this virtual sense, analytical, that any discovery of importance can be expected to be made in it.

In strictness of language, to be sure, analysis (that is the loosening of contiguous particles from each other,) and composition cannot take place in mind; thus we cannot bisect a joy or a sorrow; but nevertheless we can consider—and we are led by the very constitution of our mind itself to consider—an idea which we term a complex one to have the *relation of equivalence* to the separate ideas from which it results, and it is this feeling of the relation of certain states of mind to certain other states of mind that solves the whole mystery of mental analysis, which is founded wholly on this feeling of relation that one state of mind seems to us to bear to other states of mind, as comprehensive of them. Thus, having the conception of gold and of a mountain, we can conceive a golden mountain; a conception which, as being one feeling of one simple mind, is as much one idea as the conception of gold or of a mountain, but yet may be considered *compound* or *complex*, meaning thereby, that it is the result of certain previous feelings, to which, as if existing together, it is *felt* to have the *virtual relation* of equality.

And here we see the difference between the similar labours of the chymist and the intellectual analyst—the *instruments* of the former are material, the *process* by *manipulation*, the *result* an *absolute* analysis (or separation of the aggregates of matter.) With the latter, the instrument is the mind itself; the process by reflection; the result a *virtual*, or relative analysis; relative to what?—to us the inquirers, since it is only in relation to our conception that the complex idea is equivalent to the separate ideas from which it results. In intellectual analysis, the mind performs a threefold function, being at once the *inquirer*, the *subject*, and also the *instrument* of the inquiry.

That we are impressed with certain feelings of the relation, or comparison, of conception to conception, no one can doubt, who knows that *all science has its origin in those very feelings*. And equivalence, or equality, is one of those *relations* or *comparisons* which, in certain circumstances, it would be as impossible for the mind not to feel, as it would be impossible for it, in certain other circumstances, not to have the simple feelings which it compares. With perfect organs of vision, and in full day-light, we cannot look on a tree or rock without perceiving it; but it is as impossible for us to form a conception of two trees, without regarding this state of mind, (simple, though it truly is when absolutely considered,) as virtually involving, or as equal to two of those separate feelings which constituted the conception of a single tree.

On this mere feeling of virtual equivalence mathematical demonstration is founded, therefore without this feeling there could have been no such sciences as the mathematics; our equations and proportions of abstract quantity and number continually involving this analytic valuation of notions as *reciprocally* (quere *mutually?*) proportional. *e. g.* our conception of an angle of 45°, is one state of one simple indivisible substance—mind; so is our notion of a right angle; yet in reflecting on these states of mind we are impressed with certain relations which they seem to us *mutually* to bear, and we consider the angle of 45° as equal to half the right angle.

Intellectual analysis (i. e. the successive development in application to the various mental phenomena of this feeling of equivalence or comprehensiveness) is not confined to the notions of *quantity*; though from the greater simplicity of these, their equality or proportion may be more accurately distinguished, but extends to every thought and feeling which we regard as complex, and that is to almost every thought and feeling of the mind. We compare virtue with virtue, talent with talent, though not with the same precision yet with the same feeling of proportion as we compare intellectually one angle with another, and we have as strong a feeling that a number of ideas are involved in our complex notions of religion and government, as we have that the square of two is often repeated in the cube of six.

To the term *analysis*, as applied to the mind, it may be objected that it is borrowed from matter, and conveys here a notion different from its etymological sense, but this objection may be urged with equal force against almost every term used in metaphysics, since through want of a peculiar metaphysical language we are obliged to borrow a metaphorical language from the material world.

Some have considered and disparaged the science of mind as fruitless of discovery, and completely exhausted even by the rude *consciousness* of the rudest savages, 'who' say they 'saw, and remembered, and compared, and hoped, and feared, and must therefore have known what it is to see and remember, and compare, and hope, and fear.' This disparagement of mental study arises from attending only to the *successions* of phenomena, and neglecting by far the most important branch of the investigation of the mind, *its analysis*, which regards relations not involved in *consciousness* at all, but discoverable by *reflection* only, and to the knowledge of which relations, therefore, addition after addition may be made by every new generation of reflecting inquirers. From the first moment of its existence, the mind is constantly exhibiting phenomena more and more complex; sensations, thoughts, emotions, all mingling together, and almost every feeling modifying the feelings that succeed it; and as in chymistry the qualities of the simple are frequently not recognizable in the apparently different qualities of the compound, so in this spontaneous chymistry of the mind, the compound sentiment that results from the association of former feelings, has often so little resemblance on first view to its constituents when existing in their elementary state, that it requires the most attentive reflection to separate the assemblages which even a few years may have produced. The peasant, for example, may have the feeling of beauty as well as the philosopher; but the mere emotion is not the knowledge of the simpler feelings that have composed and modified it: it would be as reasonable to affirm, that because we all move our limbs we are all equally acquainted with the physiology of muscular motion—

or that we know all the sublimest truths of arithmetic or geometry because we know all the numbers and figures, the mere relations of which constitute these sciences, as to affirm that we are all acquainted with the physiology of the mind, and the number of elements which enter into our various feelings, because we all perceive, and remember, and love, and fear. It is only as it is analytical that the science of mind admits of discovery; but what a rich field it there presents may be imagined by considering Berkeley's discoveries in perception itself, that primary function of the mind. Hence, we can refute those who assert that the science of mind is from its very nature unsusceptible of improvement by discovery, for then it must have been so before Berkeley's time, and it would have been a sufficient answer to all the arguments in favor of his theory of vision, to say that all the phenomena which he boasted to have analyzed, were only the common and familiar phenomena of a sense that had been exercised by all mankind.

The *falseness* even of some metaphysical doctrines proves the science of mind to admit of discovery, for if all had equal knowledge of all the relations of all the phenomena, no one could advance and really believe an opinion on the subject which another could discover to be erroneous.

As an example of the difficulty of analyzing a complex feeling, (a task which we must therefore suppose beyond the power of the rudest and most ignorant of mankind,) he instances the different lights in which the passion of the miser is viewed by himself, the vulgar, and the philosopher. He is himself conscious only of the accuracy of his reasonings on the probability of future poverty, of a love of economy, and of temperance, and perhaps, too, of strict justice. To the vulgar he is merely a lover of money, and it would not be easy to convince them (unused as they are to analyzing their feelings) that the most self-denying avarice originally involved as its essence the love of those pleasures and accommodations which are now sacrificed to it without the least apparent reluctance. To say, then, that the physiology of the mind is complete and incapable of further discovery, because it has in it every thing which can be the subject of analysis—all the elements of a complete science—is as absurd as it would be to suppose that the ancient chaos, when it contained merely the elements of things, was the complete world, before the spirit of God moved upon the waters.

From the *feebleness of our powers of discrimination* a difficulty arises in the physical investigation of the mind similar to that which arises in matter from the *imperfection of our senses*. The mental difficulty consists in the apparent simplicity of those thoughts and feelings which, on more attentive reflection, are felt to be, as if compounded of many other thoughts and feelings that have previously existed together, or in immediate succession. The difficulty in matter consists in perceiving masses only, and not their elemental parts—hence we are led to consider as simple bodies what a single new experiment may prove to be composed of various elements.

These two difficulties occasion the slowness of the progress of discovery in mind and matter. But it should be remembered that the causes of these difficulties are also the sources of *analytic science*, since, had our *powers of mental discrimination* and our *bodily senses* been perfect, the elements of thought and matter would have been distinguishable at a single glance, and therefore we would have had no need of analysis.

LECTURE XI.

To the *imperfection of our faculties* then, as forcing us to guess and explore what is half concealed from us, we owe our laborious experiments and reasonings, and consequently all the science which is the result of these, and thus our proudest discoveries may, in one point of view, (namely, that they spring from this *imperfection of our faculties*,) be considered as proofs and memorials of our general weakness. Either analysis is an operation of difficulty—but that of mind is certainly not less so than that of matter. On the contrary we know less of the wondrous operations of *nature* in the intimate phenomena of our own consciousness, than we know of her distant operations, and the only science (astronomy) which, by its simplicity and comprehensiveness, seems to have attained a maturity that leaves little for future inquiry, is not that which relates immediately to man himself, or to the properties of the bodies on his own planet. This circumstance (the knowing so much of the universe and so little of himself) it is, which chiefly characterizes man as the 'jest and riddle,' (to use the words of Pope,) as well as the 'glory' of the world.

Hobbes' remark that the philosophy, not of mind only, but of the universe, is to be found within ourselves, as the perfect statue is to be found in the rude block of the quarry when all the superfluous mass that adheres to it has been removed—is in no respect more just than in this, that it is only by knowing the *true extent*, and consequently the *limits of our intellectual powers*, that we can form any rational system of philosophical investigation. Philosophy, therefore, may be truly said to be what he calls it—"Human reason herself hovering over all created things, and proclaiming their order, their causes, and effects." Rationem humanem naturalem per omnes res creatas sedulo volitantem et de earum ordine, causis et effectibus ea quæ vera sunt renuntiantem.

After these remarks on physical inquiry in general, and the particular application of it to the mind, Dr. Brown proceeds to consider the mental phenomena. These the mind is constantly presenting to us, but *in assemblages*, which it is the business of the analyst to separate and arrange; but previous to any attempt of this kind the *circumstance that strikes us first* in proceeding to examine and compare the mental phenomena is, that the *mind* which exhibits these is *susceptible of a variety of feelings*, every new feeling being a change of its state, and by such changes alone it manifests itself, either in our own consciousness, or in the actions of our fellow men. If it could exist in one everlasting state, such as now constitutes the feeling of any particular moment, it could not reason upon this state, since this very reasoning would imply the change which is supposed to be impossible. Thus Hobbes observes, that of a mind so constituted as to perceive only one colour, and to perceive this constantly, it would be absurd to say that it had any perception at all, being rather stupified than seeing.

But amid all this variety of feelings, it is the *same individual mind* which is variously affected. Of this identity of the mind we have a most undoubting belief —a belief not the result of any series of propositions, but which in certain circumstances arises *immediately* from a *principle of thought* as essential to the very nature of the mind, as its power of perception or memory. The pleasure of one moment has little apparent relation to the pain of which we were conscious a moment before; but it is the *same* individual mind which was pleased and pained. In every variety of feeling there is "something changed in all, yet in all the same," which constitutes the thoughts and emotions of the hour, and yet outlives them—something which from the temporary agitations of passion arises unaltered and everlasting, like the *pyramid* which lifts still the same point to heaven amid the sand and whirlwinds of the desert.

This consideration of the mind as one substance capable of existing in a variety of states, involves the consideration of consciousness and of personal identity. The examination of these is therefore essential to all the inquiries and speculations of this science; since whatever powers or susceptibilities we consider as attributes of the mind, the consideration must always suppose the existence of certain phenomena, of which we are *conscious*, and the *identity* of the sentient principle in which the consciousness resides.

Our first inquiry, then, is into the nature of

CONSCIOUSNESS.

In several systems of philosophy *consciousness* has been considered *one* of the intellectual powers of the mind, *differing* from its other powers as these mutually differ from each other. Thus, Reid in his catalogue of the intellectual powers, ranks it as separate and distinct, and says of it, that "it is an operation of the understanding *of its own kind*, and cannot be logically defined. The *objects* of it are our present pains, our pleasures, hopes, fears, desires, doubts, our thoughts of every kind; in a word, all the passions and all the actions and operations of our own mind while they are present." Brown, on the contrary, considers the term consciousness as merely a *short general name*, expressive of all the momentary states of mind (pleasures, pains, &c.) in reference to the permanent subject, *mind*, and not as expressing any separate and peculiar faculty of the mind of which our various feelings are the 'objects.' The sensation of fragrance, for example, is the consciousness of one moment, as the remembrance of that sensation, or some other sensation, is, perhaps, the consciousness of the succeeding moment. In answer to Reid's view of the subject, he remarks, that it is an absurdity to *double* our feelings thus, by making them not to *constitute* our consciousness, but to be the *objects* of it, as if the same indivisible mind existed at the same moment in *two separate states*, one of *sensation*, and one of *consciousness*. There are not, he says, sensations, thoughts, passions, *and also* consciousness, any more than there is quadruped or animal, as a separate being, to be added to the wolves, tigers, elephants, and other living creatures. This absurd attempt of Reid, &c. to double our feelings, is founded partly on a *confusion of thought*, and still more on a *confusion of language*. On a *confusion of thought*, by confounding those innumerable feelings, in which no reference is made to former states of mind, with those in which such reference to self is made. On a *confusion of language*, as when we say 'we are conscious of having done a thing, and call that *consciousness*, which should be called *memory*.

But we must be more explicit. The fallacy of considering consciousness different from the feeling said to be its object has arisèn, in a great measure, from the use of the personal pronoun *I*, which the conviction of our identity, during the various feelings or temporary consciousnesses of different moments, has led us to employ as significant of our permanent self—'I am conscious of a certain feeling,' only means—my mind is existing in the state which constitutes that certain feeling—the mere existence of that feeling, and not any additional and distinguishable feeling which is to be termed consciousness. But having no mode of expressing, in a single word, the mere existence of a particular feeling, when we use the paraphrase 'I am conscious of that feeling,' we are apt, from a *prejudice* *of grammar*, to separate the sentient *I* and the feeling as different—not different as they really are—merely in this respect, that the feeling is one *momentary* and *changeable* state of the *permanent* substance *I*, which is capable of existing also in other moments in other states, but so radically different as to justify our classing the feeling as object to the sentient principle, the *I*—and an object to it not in retrospect only, as when the feeling is remembered, or when it is viewed in relation to other remembered feelings—but in the very moment of the primary sensation itself; as if there could be two distinct states of the same mind at that same moment, one of sensation, and a different one of consciousness.

Where there is no reference to self, the feeling of the moment, and the consciousness of it, are precisely the same. This is shown by supposing a human being born with his faculties perfect as in mature life; and that a sensation arises for the first time in his mind; and that immediately afterwards the sentient principle is extinguished. In this case, to say 'the *sensation* existed,' and to say 'the mind was *conscious* of the sensation,' will doubtless have precisely the same meaning.* In this case there could be no reference to self, because the knowledge of self, as distinct from the particular feeling, implies the remembrance of former feelings, which former feelings, together with the present, we, by an irresistible law of our nature, (the conviction of our identity,) ascribe to one thinking principle.

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* See Note A.

But if, in the supposed case, the sentient principle be not extinguished immediately after the first sensation, but another sensation be excited, either the mind will be completely absorbed in this new sensation, without any subsequent remembrance of the former—in which case, as before, the momentary consciousness will be nothing more than the sensation itself—or the remembrance of the former feeling will arise. If this remembrance arise, and the mind consider the two feelings at once, it will, by that irresistible instinctive principle mentioned above, conceive the two sensations, which it recognizes as different in themselves, to have yet belonged to the same being. And so the notion of self, of *me*, the lasting subject of successive transient feelings, is acquired through the remembrance of former sensations.

Where the memory of the past, as in the last supposed case, mingles with and modifies the present, the verbal proposition—I am conscious of a particular sensation—may be allowed to express something more than the mere existence of the momentary sensation, for it expresses, also, that the mind, which now exists in the state of this particular sensation, has formerly existed in a different state. In those successions of thought, then, by much the fewer in number, *where a reference is made to former states of mind*, analysis discovers only a remembrance and a feeling of common relation of the past and the present affection of the mind to one permanent subject, which feeling is involved in the belief of our continued identity. *Consciousness, in this sense of the term, is a word expressive of this belief*, and of nothing more.

In our sensations there is nothing from whence reason could infer *the belief of our identity.* That belief is only an *instinctive principle.* Doctor Reid admits this. It follows, that if this instinctive belief had not been a natural law of human thought, operating irresistibly on the remembrance of our different feelings, we should have no notion of self. Consciousness, then, could have been nothing more than sensation itself. *It is the belief of our identity* only, which gives us the notion of *self,* as the subject of various former feelings, and it is this notion of self which leads us to regard the consciousness of the moment as different from the sensation, because it suggests those former feelings which were different from it, or at least that subject, *mind,* which existed before the present sensation.

Considering consciousness to be nothing more than *a reference to the past and consequent belief of identity*—to call it a *faculty* is allowable, but an absurd use of the term. But this, certainly, is not the sense which has been attached to it by philosophers; and indeed in this sense, instead of having for its objects, as Dr. Reid says, all our present pains, &c. it would be limited to the comparatively few of which the consideration of our personal identity forms a part. The belief of identity not being the only belief arising from an instinctive principle, if its existence entitle us, in our classifications, to the possession of a new faculty, so should our other instinctive beliefs.

Consciousness, then, is, when it regards the present only, a *general term for all our feelings.* When it means more than this, it is *a reference to the past, and consequent belief of identity*. There is another sense which the looseness of common conversation may allow, but which is inexcusable in philosophical discourse, and yet has been a great source of confusion—*when we say we are conscious of something past*—especially when very recently past.

Consciousness being limited to the *present*, is essentially distinct from *conscience*, or moral memory, the object of which is the *past*, and which would be itself rather an object than a part of Reid's faculty of consciousness, if such existed. The distinction between consciousness and conscience is noted, lest their similar etymology might mislead.

LECTURE XII.

The inquiry into the *identity of the mind*, as truly one and permanent amidst all the variety of the successions of its momentary consciousness, arises, necessarily, from the consideration of these, and is involved in all our attempts to arrange them.

Objections drawn from the daily waste and daily aliment of the corporeal part have no force against those who contend for the identity of only the thinking principle; since the individuality of this would be as little destroyed, though every particle of the body were changed, as the individuality of the body itself would be destroyed by a change of dress. But on the other hand, if the unity and identity of the thinking principle can be established, such unity and identity in the constant state of flux of the corporeal particles, furnish a strong argument against those systems which consider thought and feeling as the result of material organization.

On no system can the *absolute* lasting identity of the thinking principle be understood in any other sense than as strictly mental; for if we adopt the system of materialism we must reject it altogether; and if we do not adopt that system it is in the mind alone that we must conceive the identity to subsist. *Mental* identity, therefore, would be a more appropriate phrase than that which is most used—*personal* identity. For person, in at least the common acceptation of the word, though involving the mind, is yet more than the mere mind, so that sameness of person would combine the *absolute* identity of the mind with some sort of identity of the body also; using the term identity not so strictly in its application to the body, the identity of which is not absolute, but admits of considerable or even total change, provided the change be so gradual as not to be inconsistent with apparent continuity of existence. Reid considers person as involving no consideration of the body—'All mankind' says he, 'place their personality in something that cannot be divided, or consist of parts. A part of a person is a manifest absurdity.' Certainly all mankind place their personality in something which cannot be divided into two persons, or into halves of a person:—but why? Because the mind itself is indivisible, and the presence of this one indivisible mind is essential to personality. Still, mind is not all, which *person* in the popular sense at least, comprehends; for if the system of metempsychosis were true, and the mind which animates some of our friends were the same which animated Plato, we would not say of Plato and our friend, that they were as exactly, in every respect, the same person as if no metempsychosis whatever had intervened. But Reid says, 'A person is something indivisible, and is what Leibnitz called a *monad*. If a man has a leg or an arm cut off he is the same person he was before—the amputated member is no part of his person—otherwise it would have a right to a part of his estate, and be liable for a part of his engagements; it would be entitled to a share of his merit and demerit.' This is no proof, for the engagement and moral merit and demerit belong not to the body but to the mind, which we believe to continue precisely the same after the amputation as before.

But omitting this question about the propriety of a term, we will proceed with the consideration of identity, mental or personal, whichever you please to call it. The Enthymeme, by which Des Cartes attempted to prove the identity of the thinking principle, "Cogito, ergo sum," is, as Lord Shaftsbury observes, a petitio principii, for the *ego* is assumed in the antecedent. Shaftsbury "takes his being upon trust," and justly remarks, that we do not scruple to act as resolutely upon the mere *supposition* that *we are*, as if we had proved it to the satisfaction of our metaphysical, or Pyrrhonean antagonist.

The Pyrrhonists argue that it is necessary to the 'entity of a substance that its qualities be the same—

that of which the qualities are different cannot be the same; but the only mode of knowing whether its qualities be the same or different, is to observe how it affects, and is affected by other substances. *When in two corresponding series of changes, the same substances affect it in the same manner, and it affects in the same manner the same substances, it is the same,* or at least perfectly similar; otherwise not. This is the *Pyrrhonistic test of identity.* Thus, if a substance which externally resembles sugar melt not in warm water, we conclude it not to be sugar; the single circumstance of manifest difference being sufficient to destroy the effect of a thousand manifest resemblances.

By applying this test, two objections are suggested against the identity of the mind; *one,* drawn from *the striking contrasts of character* occasionally observable in the same individual at *different periods of life,* e. g. the generous youth sometimes becoming selfish in old age—*the other* drawn from the *diversity of our feelings at different moments;* for, can that which is joyful one moment, and that which is sorrowful the next, be precisely the same, if joy and sorrow be different? On the supposition of complete unity and permanence of the thinking principle, nothing is added to it, nothing is taken away from it, and as it has no parts it cannot undergo any internal change of elementary composition. If the mind be so strictly the same, say the objectors, it would be absurd to predicate of it any diversity whatever. Now, joy and sorrow imply a diversity of some kind, and if this diversity cannot be predicated of that substance which is precisely the same without addition, subtraction, or any internal change of composition whatever, that which is joyful and that which is sorrowful cannot have absolute identity—for if we affirm that such a diversity is not inconsistent with absolute identity, we may as well affirm that a substance which is hard, heavy, blue, and transparent, &c. is precisely the same as that which is soft, light, green, and opaque. This second objection is equally forcible with the former, but not so *obvious*, being more *abstract*; for it does not proceed on those general and lasting changes of character with which every one must be struck, but on the passing phenomena which are not inconsistent with the continuance of the same general character, and which being common to all mankind, excite no astonishment.

LECTURE XIII.

The evidence of mental identity is two-fold—*negative*, which consists in overturning the two objections stated in the last lecture—and *positive*, which we will first consider.

All belief is either *direct* or *indirect*. DIRECT, when a proposition without regard to any former proposition expressed or understood, is admitted as soon as it is expressed in words, or as soon as it rises silently in the mind, (having what Locke calls intuitive evidence.) Such are all the orders of truths which on this account have been denominated *first truths*. INDIRECT, when the force of the proposition to which assent is given is admitted only in consequence of the *previous admission* of some former proposition, with which it is felt to be ultimately *connected. And the statement in words, or internal developement of these relative propositions, in the order in which their relation to the primary proposition is felt, is all that constitutes reasoning.*

Hence, it is manifest, that without some principles of immediate belief, (he calls them also principles of intuitive belief, and first truths,) we could have no belief whatever, for we believe one proposition because we discover its relation to some other proposition, which is itself, perhaps, related in like manner to some other proposition formerly admitted, but which, carried back, must ultimately come to some primary proposition, which we admit from the evidence contained in itself—that is, *from the mere impossibility of disbelieving it.* All reasoning thus, even the most sceptical, ultimately depends on principles which are taken for granted, not because we infer them by logical deduction, for this very inference must then be founded on some other principles received without proof; but because the admission of these first principles is a necessary part of our internal constitution—without such first principles there could be no reasoning. Objections, therefore, to these principles of intuitive belief must ultimately depend on some principle of intuitive belief, since they depend on the essential validity of reasoning. To object is to argue, and to argue is to assert the validity of argument, and therefore of the primary evidence from which the evidence of each succeeding proposition of the argument flows. *To object to the authority of such primary intuitive belief would thus be to reason against reason, to own that the very arguments we urge are* *unworthy of being received and credited.* Dr. Priestly, then, and other English metaphysicians, were in error when in arguing with Reid they ridiculed the decision of philosophical questions on certain ultimate principles of *common sense.* In calling them principles of *common sense,* Reid used an improper term—he was guilty of a greater mistake in multiplying them needlessly. We should be cautious in admitting any proposition for a principle of intuitive belief, because the unnecessary multiplication of them is in the highest degree injurious to sound philosophy, both by *leading us to form false views of the nature of the mind* in ascribing to it principles which are no part of its constitution, and also, by *checking the vigour of our philosophic inquiry,* by seducing us into the habit of acquiescing too soon in the easy and indolent faith, that it is unnecessary for us to proceed farther, as if we had already advanced as far as our faculties permit. This is the more unfortunate, because not only our *indolence,* but also another powerful motive, our *thirst for knowledge*—that is to say, the philosophic curiosity in which inquiry originates, favors our too easy acquiescence. Thus our thirst for knowledge tends, by a sort of double influence, to repress the very inquiry to which it gave rise, by rendering the suspense of ungratified curiosity so painful as to resemble the uneasiness felt from the ungratified cravings of bodily appetite, hence we more readily yield to the illusion which seems to remove our suspense. They who commit this mistake know not where *doubt* should end. Doubt, like epic or dramatic narrative, should have a beginning, a middle, and sometimes, though not always, an end; the middle is easy—in the beginning and end the difficulty lies. The sceptic who denies the competency of our faculties to distinguish truth from falsehood, knows not where doubt is legitimate, and where it should cease; with him it would be absurd to reason, for he does not even know, certainly, that he has any uncertainty at all; but he, also, who is satisfied with the result of an inquiry which he could prosecute farther, knows not how to doubt. Truth is the last link of many long chains, the first links of all of which nature has put into our hands; when we arrive at the last and feel completely that there is no link beyond, it would be absurd to think we can still proceed further; but if we stop before we arrive at the end, and maintain, without stretching out our hands to make the experiment, that there is none further—truth is still beyond us. The difficulty of ascertaining precisely whether it be truth which we have attained, is often greater than the difficulty of the attainment; in this respect Fontenelle compares philosophy to a game of blindman's buff, where, on catching any one, you have to tell his name, or let him go, and commence the pursuit again. Brown compares the multiplying unnecessarily of the number of principles of intuitive belief, and the denying of the existence of any such principles—the one to a drawing of the human body with a double proportion of arms and legs; the other to drawing it without any at all.

However valuable these principles are, as being the primary evidence of all our processes of reasoning, they are still more valuable as being necessary to our existence. Without our *belief in the truth of what we remember*, and *that the course of nature, in future, will be such as we have already observed it*, we could not exist a day; yet there is no reasoning from which these two beliefs can be inferred. On account of their importance, the principles of intuitive belief are not left to the casual discovery of reasoning, but are disclosed to us by an internal never-ceasing revelation from on High. It is impossible for us to doubt them, for to disbelieve them would be to deny what our very constitution was formed to admit. Even the Atheist, therefore, is thus every moment, in which he adapts his conduct implicitly and without reasoning to these directions of the wisdom that formed him, obeying, with most exact subserviency, that very voice which he is professing to question or to deride.

From all that has been said it may easily be collected, that the CRITERIONS OF A PRINCIPLE OF INTUITIVE BELIEF are, that it be felt *immediately*, *universally*, and *irresistibly*. And yet their primary, universal, and paramount force has caused these principles to be entirely overlooked; because, being admitted on all sides, and therefore never disputed, they have excited no interest in discussion, and have never seemed to add to our stock of knowledge, like the results of reasoning, which have added to it truth after truth. Thus, not considering the foundations of our reasonings, but merely the reasonings founded thereon, we learn to consider truth and reasoning as unavoidably connected, and to regard the assertion of truths, that do not flow from reasoning, as something unworthy of philosophy.

The *positive* evidence of the identity of the mind is *intuitive*, for our *identity has all the criterions of a principle of intuitive belief*, being so *universal*, that the very maniac who conceives that he was yesterday emperor of the moon, believes that he is to-day the very person who yesterday had that empire: so *immediate*, that we cannot consider any two feelings of our mind as successive without instantly considering them as feelings of our mind—that is to say, as states of one permanent substance—and so *irresistible*, that even to doubt of our identity, if it were possible for us truly to doubt it, would be to believe, that our mind which doubts is that very mind which has reflected and reasoned on the subject. The belief of our identity, *as one permanent being, capable of many varieties of sensation and thought*, is so prior and paramount to mere reasoning, that the very notion of reasoning necessarily involves it. To reason is to draw a conclusion from some former proposition; and how can one truth be inferred from another, unless the mind which admits the one be the mind which admitted the other? It is the first of our intuitions in *importance* and in *order*, being necessarily implied in all, or at least in most other, primary truths. For example—in taking for granted, as all mankind irresistibly do, the similarity of the future to the past, we must previously have believed that I, the same sentient being who expect a certain order in the future phenomena of nature, have already observed a certain order in the past.

It has been said by some that it is from a *comparison* of our present with our past consciousness that the belief of our identity in these states arises. This is not a proper use of the word *comparison,* since the two feelings may have nothing common, except that very belief of identity which is involved in the remembrance itself. It is to *memory* that the belief of identity is ultimately to be traced. Memory involves the belief of identity, for it is not merely a past feeling that arises to us in memory, but a feeling recognized as *ours* in the past time, of which we think; a feeling, therefore, of that mind, which now remembers what it before saw, felt, &c. It is, moreover, *only* on the consideration of some past feeling that the belief of identity, or the knowledge of the mind as a substance—for they express the same notion—can arise; for identity being a relative term implies a double observation. The identity of the mind is its *continuance,* as the subject of various feelings; therefore the belief of it can arise only on consideration of its successive phenomena, and cannot be involved in any one of those separate feelings.

Our faith in our identity being then only another form of the faith we put in memory, can only be questioned by those who deny all memory, and with memory all reasoning of every kind—all demonstration; for these depend on memory. The sceptic, then, who attempts to move the whole world of truth with his lever, must say with Archimedes, *δὸς ποῦ στῶ,* for to deny all first principles, on which his demonstration should depend, is like setting his foot on air, and throwing away the only fulcrum on which he could rest his lever.

But though the belief of the identity of the substance which thinks, is thus established on the firmest of all grounds—the ground on which demonstration itself depends—and therefore can not be shaken by the objections against it; yet, as the inquiry is interesting, and throws light on all the changes, material and mental, that are momentarily taking place in the universe, our author proceeds to overturn these objections.

These objections depend on the assumption of a test or criterion of identity, (*see page* 65,) transferred, without sufficient reason, from the *obvious* appearances of matter to mind, and which, if *matter* be accurately considered, is equally false, too, with respect to it. This transfer of a false test of identity is the true key to the sophistry of the objections.

The cause of this transference is natural—it is, that all our operations, which leave fixed and permanent marks of our agency, are immediately concerned with the *changes* of the *material substances* round us, and through those changes our communications with other minds are carried on; hence, in considering the nature of changes of every kind, *our philosophy is tainted with prejudices derived from the material world.* This same cause has produced the many analogies, from external things, in the language employed to express the intellectual functions; and this materialism of language contributes *to darken our conceptions of the nature of the mind and its phenomena;* so that the cause above mentioned doubly tends to this effect—immediately, by giving rise to the erroneous analogy of *changes*, and mediately, by influencing language. To estimate how greatly the materialism of language has contributed is impossible, since it would imply that the mind of the estimator was free from its influence; but its influence cannot be estimated too highly, not confining its effects to the works of philosophers, but acting more powerfully on familiar discourse, and thus incorporating itself, as it were, with the very essence of human thought. Thus, the inventor of even a most barbarous term may give rise to lasting systems of opinion, triumphing more durably over the minds of men than the greatest conquerors have done. A few phrases of Aristotle have achieved a more lasting conquest than the generalship of Alexander.

LECTURE XIV.

The objections against the mind's identity, in the diversity of its mental states, are derived from our view of matter as implying, in all its *visible* changes of state, some loss of identity—some addition or subtraction of particles, or change of their form of combination. For example:—the mind being said to acquire knowledge by perception, and to lose it by forgetfulness, bears analogy to the *change* of water into ice or steam, by the loss or addition of a portion of caloric, and since absolute identity seems inconsistent with change of state in the latter set of phenomena, we think it so in the former; but if it appear, on closer view, that *matter* itself, without the slightest loss of identity, exists at different moments in states not only different but actually opposite, then, that the mind should also, cannot seem wonderful, and the apparent mystery of the continued identity of one simple and indivisible mind, in a variety of successive states, will be in a great measure solved by showing that this union of variety and sameness extends to every thing which we know in the universe.

Now that matter, without loss of identity, can exist in different states at different moments, appears from considering celestial gravitation. The identity of substance of the heavenly bodies is not affected by their mutual attractions, though their *state* or temporary physical character is. The attraction of the moon causes the tide to ebb and flow without any change in the identity of the ocean. If the moon were suddenly annihilated, great changes of state would ensue at the earth without any alteration of its identity; and in like manner, if light were suddenly to vanish, the state of the mind would be instantly changed, while the identity of its substance continued unaltered.

We have first considered the planetary attractions, because, in operations at a *distance*, it is impossible not to perceive that even in matter a change of state is not inconsistent with complete permanence of absolute corpuscular identity; while in the compositions or decompositions that occur in the physical changes on the earth's surface, the additions or subtractions of matter that seem to constitute these phenomena truly destroy the corpuscular identity of the substances in which the change takes place, and thus the change of state is conceived to imply a positive substantial change. But even here, examining more closely, we find, not a positive *change of substance*, but a *change of state* in a *congeries* of independent substances, which we term one substance, merely because the spaces between them are to us imperceptible, (*see page* 20)—the addition or subtraction of matter not *constituting* the new states or tendencies of the particles which continue present, but merely *giving occasion to those changes* of state, as the positions of the heavenly bodies do not *constitute* the phenomena of the tides, but merely give occasion to that difference of state in the particles of the ocean.

Consider, now, the phenomenon of impulse. Is it less conceivable that *the mere presence of* a hot or luminous body should produce the new sensation of warmth or colour, (different states of the sentient mind,) without affecting the identity of the mind itself, than that one billiard ball should, by impulse—that is, by its mere presence, (*see page* 25)—produce in another, without any loss of absolute identity, a tendency to move with a certain velocity; a state as different from that in which it remains at rest as the sensation of warmth, which is one state of the mind, is different from the sensation of colour, which is another state of the mind? Take into account the varieties of direction, as well as of velocity, and it is evident that one body, by its mere presence, can produce in another as many varieties of state as the mind is susceptible of, without any loss of identity in either the moving or quiescent body on the one hand, or on the other hand, in the mind.

These considerations are a complete answer to the objection derived from lasting changes of general character, as well as to that drawn from the contrasts of the mind's momentary feelings. The same billiard balls, which, when forced within a certain degree of close proximity, repel each other, as if they had a natural tendency to fly asunder, would, if separated at the distance of the heavenly bodies, have a directly opposite tendency. Why, then, may not the *same* minds have their opposite tendencies—hating what they loved and loving what they hated, when removed into circumstances that are different? And if the change of circumstances be not temporary but permanent, why should not, also, the change of affections?

LECTURE XV.

While the compatibility of diversity, with absolute identity, which was explained in the last lecture, was but obscurely felt, and yet men were unwilling to abandon altogether the doctrine of mental identity, the difficulty of reconciling the growth or decay of knowledge, and all the successive contrasts or changes of feeling which our sensations, thoughts, emotions exhibit, with the permanent indivisible unity of the same sentient principle, occasioned a *prejudice,* which has been very injurious to the progress of the philosophy of the mind, by giving a wrong bias to the speculations of many enlightened men. This prejudice consists in a vague and almost unconscious tendency to materialism; or, where it has not gone quite so far, to *semi-materialism*, by which term he means the encumbering of the simple theory of the mental phenomena with false and unnecessary hypotheses, very much akin to those of absolute materialism.

Such are the hypotheses of *phantasms*, *animal spirits*, *vibratiuncles*, or other sensorial emotions, by introducing of which, and by so complicating the corporeal part of the process of sensation, the *supposed* difficulty of accounting for the diversity of sensations was less felt when it was to be divided among so many substances in almost constant motion, while, at the same time, the attention was led away from the immediate mental change, in which, alone, the supposed difficulty consists, to the mere corpuscular changes, in which there is no difficulty.

But without absolute materialism the mind must still be left as the *ultimate* subject of sensation; and so the supposed difficulty still remained in spite of those complicated material processes which only *diverted* the attention from it, as a juggler, when wishing to withdraw a single card, distracts the attention by presenting us with many.

For, obviating this tendency to materialism, or semi-materialism, it is important to have accurate views of e nature of our mental identity, and above all, that e should be convinced that absolute identity is per- tly compatible with diversities, almost infinite, since v of this compatibility, as independent of any additions or subtractions of substance, removes the necessity of converting our simple mental operations into long complicated processes, of which the last links, only, are mental, and the preceding imaginary links, corporeal.

Let us next examine Locke's strange opinions concerning personal identity. According to him it consists in consciousness, but the term consciousness, in reference to the past, can only mean perfect memory—so that, what we do not remember, we, as persons strictly speaking, never did. This is making the identity of that which remembers—which is surely independent of the remembrance itself—to consist in that remembrance—that is, confessedly fugitive! And to increase the inconsistency, he, who holds that personal identity consists in consciousness, denies that the soul always thinks, or is conscious; so that in this interval from consciousness to consciousness, since that which is essential to identity is, by supposition, suspended, the same identical soul, as far as individual personality is concerned, is not the same identical soul, but exists when it does not exist.

Reid, also, from Locke's doctrine, observed this same deduction, 'that' as he expresses it, 'a man may be, and at the same time may not be, the person who performed some particular action;' he supposes that one who was flogged, when a schoolboy, for robbing an orchard, and afterwards was distinguished in battle for capturing a standard from the enemy, should finally be made a general: that, when capturing the standard, he remembered the flogging, and so was the same person; but, when made a general, he remembered capturing the standard, (and therefore was the person who captured it,) but forgot the flogging, and therefore was not the person flogged—therefore, the capturer of the standard was, and at the same time was not, the same person as he who was flogged.

But Locke himself has deduced just as extraordinary consequences from his own doctrine—allowing it to follow, that if at night, and only at night, we remembered one set of the events of our life, and only in the day time a different set, this "day-and-night man" would be two as distinct persons as Socrates and Plato—he makes a distinction of the visible man, who is the same, and of the person who is different; but still, as far as identity of person is concerned, he makes our remembrance of having done a certain act to be not merely the evidence by which we believe ourselves to be the persons who did it, but the very circumstance which makes us personally to have done it—a doctrine, which if the word person be understood in the slightest degree in its common acceptation, would involve an absurdity as great as if it had been affirmed that our belief of the creation of the world actually made it to have been created.

The most abundant source of error in the writings and silent reflections of philosophers, especially of such as are gifted with originality of thought, is the *ambiguity* of the language which they use when they retain a ord with some meaning different from its common ceptation—the common meaning often mingles in-sibly with their own, and produces a sort of confusion which incapacitates them from perceiving the precise consequences of either of the two. This was the source of Locke's paradox; from his definition of person—a thinking, intelligent being, that has reason and reflection, and *can consider itself, as itself, the same thinking thing in different times and places, which it only does by that consciousness* which is inseparable from thought—it immediately follows, that personal identity, *in his sense,* is wherever consciousness is, and can be no where else; but this only means, that *consciousness* is wherever consciousness is!—an insignificant truism: but Locke thought the information more important, because he was unable to refrain from keeping in his own mind some obscure impression of the common meaning of the term *person,* and extending to it, as commonly understood, what was only true of it as defined by him; so that the truism owes its paradoxical appearance merely to a misconception, being equally as absurd as if, having defined *animal,* so as to exclude all winged creatures, we should propose it as a notable paradox, that no animal is capable of rising for a few minutes above the surface of the earth.

But it seems conducive to our happiness, that minds, even such as Locke's, should be liable to error; without that liability, as was said before, (*see page* 12,) there could be no progression; that perfect system of faculties which excluded error would have rendered man's discernment too quick not to seize instantly innumerable truths, the gradual discovery of which, now, has been sufficient to give glory and happiness to observer. In *mind*, also, the best classification is not founded on the most obvious relations. The phenomena of the mind are only *the mind itself existing in certain states*, and, as many of these states are in their nature *agreeable* and others *disagreeable*, this difference, which is to the sentient being himself the most important of all differences, may be supposed to afford the most obvious principle of classification—it is, perhaps, the first distinction which the infant makes, and even the idiot is capable of it, and of regulating by it his momentary desires. According to this obvious principle the distribution of the mental phenomena would be into those which are pleasing, those which are painful, and those which are neither pleasing nor painful. But this distinction cannot be adopted as the basis of any regular system, because the circumstances on which the differences depend are too indefinite. How small and variable a boundary separates the *warmth* which is pleasing, from the heat which is painful—if the eye be inflamed, that quantity of light which was before agreeable becomes a source of agony. Since it is impossible, therefore, to fix the limits of pleasure and pain—and every affection or state of mind agreeable, disagreeable, or indifferent, may, by a trifling change of circumstance, be converted into an opposite state—it is evident that any division founded on this distinction would rather perplex and mislead than assist us in the arrangement.

The great leading division of the mental phenomena into those which belong to the *understanding*, and those which belong to the *will*, though very ancient, and adopted by most philosophers, is very illogical, violating both laws of division. For, since the will, far from being opposed to the understanding, is admitted, even by the assertors of its diversity, to exercise in the intellectual department almost as wide an empire as in that allotted to itself, (for instance, we reason, &c. at least as voluntarily as we esteem or hate, &c.) it is evident that the *parts are not distinct;* neither *is it adequate,* for many affections, grief, joy, &c. can be reduced to neither part. Such division is like dividing animals into those with wings and those with legs—since some animals have both and some neither.

Another division, similar to the former, and of equal antiquity, since it corresponds with the ancient division of philosophy into the contemplative and active, is into those phenomena which belong to the *intellectual* powers, and those which belong to the active powers—this is liable to the same objections as the former, (the division inadequate, and the parts indistinct.) So little are the intellectual powers opposed to the active, that it is only when some intellectual energy co-exists with desire that the mind is said to be active; to will is to act with desire, and unless in the production of mere muscular motion, it is only intellectually that we can act. To class the active powers as distinct from the intellectual, is to class them as opposed to that, without which, as active powers, they cannot even exist.

But it may be said that, though the phenomena usually ranked as active are not immediately connected with action, yet they deserve this generic distinction, as leading to action *indirectly.* However, when we consider that even in this sense our intellectual energies are far more active than many of those affections of the mind which, as they cannot be classed under the head of intellectual powers, must belong to the other division, *e. g.* sorrow, and that even when sorrow does lead to action, as when we strive to remedy the past, the regret which constitutes sorrow is not so closely connected with the conduct which we pursue as the intellectual states of mind that intervened, the judgments by which we compare project with project, and choose our best plan of proceeding—we must confess that even in that limited sense of leading indirectly to action, the distinction is inadmissible.

Two motives led Dr. Brown to attempt a new classification of the mental phenomena, viz.:—1stly. The faultiness of the ancient divisions; and 2ndly. The advantage that arises from viewing objects according to new circumstances of agreement or analogy—for we see in this case what had passed unobserved, while we were accustomed only to the order and nomenclature of a former method. When the mind becomes habituated to certain classifications, it is apt, in considering an object, to attend to those qualities only, which are essential to the classification, and to overlook other properties equally essential to the nature of the separate substance, but not included in the system as characters of generic resemblance. The frequent consideration of individual objects, only as they belong to a class, fixes the peculiar relations of the class more strongly in the mind, and weakens, proportionally, the impression of the unincluded properties. Therefore, a new classification, which includes in its generic characters the neglected qualities, draws attention to them, which they could not otherwise have attained, and the more various the views which we take of the objects of a science, the juster, because the more equal will be the estimate which we form of them. The mere reading over of the terms of a new division in a science with which we are familiar, is enough to call our attention to some property or relation, the importance of which we find, with surprise, that we had previously overlooked.

There are two errors into which the exercise of the power of generalizing has led philosophers—the one is the supposition that by our classifications we are able to change the qualities of the substance classed. Though the assertion of the existence of such an error may appear absurd, it really exists notwithstanding, for when we give a name to any quality, it acquires, in our imagination, a comparative importance different from what it had before, and though its nature in itself be truly unchanged, it is ever after, relatively to our conceptions, looked upon as different—a difference of words being more in this case than a mere verbal difference, for it speedily becomes a difference of doctrine. The other erroneous supposition is, that by classifying the states of the mind as referable to certain powers or susceptibilities, *e. g.* to the understanding and the will, we make these powers something different and separate from the mind itself. From this absurd mistake innumerable controversies in philosophy have arisen. No sooner was the mind, existing in certain states, denominated the understanding, and in certain other states, denominated the will, than the understanding and the will ceased to be considered as the same individual substance. Every new division of the faculties of the mind converted each faculty into a little independent mind, (*see Locke's Essay, b.* 2, *chap.* 6,) as if the original mind were like that strange animal the polypus, (of which, if cut in pieces, each part becomes an entire polypus,) only differing in this, that in the polypus the divisibility of the parent animal is allowed, while those who assert the spiritual multiplicity assert, at the same time, the absolute indivisibility of that which they divide.

In Dr. Brown's classification of mental phenomena, the first important distinction relates to their *causes* or immediate antecedents, as either *foreign* to the mind, or as *belonging to the mind itself*—viz. its previous states: suppose we behold an oak, the presence of the oak, or rather of the light reflected from it, occasions a certain new state of mind which we call a sensation of vision—an affection which belongs to the mind alone, but of which we believe that the mind, without the presence of that light, would not have been the subject—of the peculiar sensation therefore, the *cause*—viz. the presence of the light reflected from the oak—is foreign to the mind, and we perceive the sensation, because the mind is capable of being affected by external things. Such sensations, therefore, as this, implying, in external objects, a power of affecting the mind, n the mind a susceptibility of being affected by them, e result of the laws both of matter and mind—these he calls *external affections.* Suppose, now, the sight of the oak recals to our memory some other tree formerly seen—here we have *an oak* immediately followed by *the sensation of beholding it*—then, immediately after, comes *the suggestion of another tree,* which may, perhaps, be succeeded by a *comparison of their relative magnitudes.* This is a succession of three states of mind, of which the first alone, (the sensation of beholding the oak,) is *immediately* the consequence of the presence of an object external to the mind; the latter two (the suggestion and comparison) being *immediately* preceded by affections of the mind itself, have their *causes* internal. These latter, then, may be called *internal affections,* and are not the result of the laws of matter at all, but of the susceptibilities of the mind itself, which has been formed by the Creator to exist in certain states, and to exist in these in a certain relative order of succession.

Conformably to this distinction of their causes, the first stage of the generalization of the mental phenomena is their reduction into *external* and *internal* affections. *Affections* of mind and *states* are used as synonymous, to express the momentary feeling of mind, whatsoever it be, with this difference, that the word *affection* signifies the momentary feeling, *considered as an effect,* and thus conveys, in addition to the signification of state of mind, the *relation* which any particular state of mind may bear to the preceding circumstances, whatever they may be, which have induced it. The terms, states, or *affections* of mind, however, are the simplest for expressing the whole series of phenomena of the mind, in all their diversity, as existing phenomena, without any mixture of hypotheses as to the particular mode in which the successive changes may be supposed to arise.

The separate organs of sense furnish an evident ground of distinction for the subdivision of the *external affections* The *internal* may be subdivided into intellectual states and emotions. The latter comprehends the states which have been usually denominated *active powers*; but the term *emotions* is preferable, for the following reasons:—first, to avoid the phrase *active powers*, which is awkward and ambiguous as opposed to other powers said to be *passive*; second, because our emotions, without the intervention of the intellectual states, could never have acquired the epithet of active; (*see page* 85,) third, because, under this head are included some states which could not properly be termed active, (grief, joy, &c.) (*see page* 85,) and also some states which have been inaccurately ascribed to the intellectual faculties, such as the feelings of beauty and sublimity, which are more analogous to our feelings of love, awe, and other emotions, than to our remembrances, reasonings, and other intellectual states. Note, that it is the mere *feeling* of beauty or sublimity, &c. which is here spoken of, and not the *judgment* which we form of objects as more or less fit to excite that feeling. The judgment is, of course, intellectual, but as distinct from the feeling which it measures as any other judgment from the external or internal object which it compares.

Our *emotions* differ* from our *intellectual* states by a peculiar vividness of feeling, the difficulty of verbally expressing which, renders it difficult to define our emotions, for the same reason which renders it impossible to explain the meaning of the terms *thought, sweetness, &c.* (*see Locke, book* 3, *chap* 4, *sec.* 4.) If any be ignorant what is meant by the term emotion, it can only be explained to them by stating the number of *feelings* to which we give the name, or the *circumstances* which induce them. He defines them " vivid feelings, arising, immediately, from the consideration of objects perceived, or remembered, or imagined, or from other prior emotions." In some cases—as in the emotion which beauty excites—they *succeed* the primary perception (or intellectual state which excited them) so rapidly, as almost to form a part of it; yet we find no great difficulty of analysis in separating them—*e. g.* we can as easily imagine the same accurate perception of *form* and *colour* to be unaccompanied by the *feeling* of *beauty*, as we can imagine the *same* feeling of beauty to accompany the perception of *other* forms and colours.

LECTURE XVII.

Furthermore, emotions, though represented as *subsequent*, in their origin, to other intellectual states, may yet *coexist* with them in forming complex states—*e. g.*

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* They differ from the vivid pleasures and pains of sense, for this reason, of course, (*see page* 89;) that they do not arise, immediately, from the presence of external objects, but subsequently to the primary feelings—*i. e.* sensations and perceptions.

the emotion of pity may continue in the mind while we are intellectually planning means of relief for the sufferer; or a sage may feel pleasure at the thought of future discoveries at the moment in which he is busiest at his labours; or a general feel the passion of glory while actively engaged leading his army into a new field of action; yet where the emotion is *coexistent* with other states of mind, it is easy to distinguish its subsequence of origin to the feelings which excite it—*e. g.* the pity alluded to may coexist with a long train of thoughts occupied about devising relief for the misery which we pity; but that misery must have previously occupied our thoughts. As warmth and radiance seem rather to accompany than flow from the presence of the sun; while, in reality, they do flow from it—so it is with emotions, though they, likewise, *seem* rather a part than a consequence of the feelings which excite them.

The mind is susceptible, then, of three species of affections, *external,* as sight, touch, smell, &c.—*intellectual* states, as remembering, comparing, reasoning, &c.—and *emotions,* as admiration, desire, &c; and of these states, and their combinations, the whole of life is composed, every minute of every hour, in all its variety of occupation, being but a portion of this complicated tissue. Of all the sources of internal feelings, the most permanent, and usually, the most vivid, and therefore, best remembered, are the external affections of the senses. But they are not *necessarily* engaged in the production of emotions, which, though they may have been dependant upon them originally, are now no nger dependant on external things—thus, we can *love* the virtues and *admire* the beauty of which we read in history or fiction, or which we only imagine, if not with the same ardour, yet, in the same manner as we do the virtue and beauty which exist in our presence; and an almost constant succession of thoughts and emotions follows thoughts and emotions, so that could our animal life be preserved when sight, smell, in short all our senses were destroyed, our intellectual and moral existence—the only life worthy of the name—would also be preserved; the knowledge which we acquire from without living within us, and memory supplying, in some measure, the senses which we had lost.

Having now divided all the mental phenomena into *external* and *internal*, according to their causes, and subdivided the internal into intellectual states and emotions, we proceed to consider—first, the external powers or susceptibilities of the mind; second, the intellectual powers or susceptibilities of the mind; third, its susceptibilities of emotion—beginning with that class, which we have every reason to suppose, the* first in the actual order of developement—the powers or susceptibilities of the mind in immediate relation to its own bodily organs.

Certain states of the bodily organs are followed, directly, by certain states of mind;—certain states of mind by certain states of bodily organs—*e. g.* first, the nerve of sight, a bodily organ, is affected in a certain manner—vision, a state of mind, is its consequent,

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* He admits no innate ideas—we may see from this passage.

(such states are sensations, and indicate a mental *susceptibility.*) Second, I *will* to move my hand, my hand instantly obeys the will—this production of muscular motion by the will, indicates a mental *power,* (*see page* 27)—yet, in compliance with general language, we may speak of the *power* or *faculty* of sensation or perception, provided we mean nothing more than that the mind is affected in a certain manner, and therefore, must have had a previous susceptibility of being thus affected whenever certain changes have previously taken place in that nervous system with which it is connected.

External affections comprehend all those states commonly termed *sensations,* together with all our internal organic feelings of pleasure or pain, that arise from states of the nervous system as much as our other sensations. Many of these are commonly ranked under another head—that of appetites, such as hunger, thirst, desire of repose, or of change of muscular position, &c.—but these appetites can be analyzed into two elements—a *pain* and a *subsequent desire* of that which is to relieve it, and the two elements are easily distinguished, for the pain must have been felt as a sensation before the desire of relief can arise—the pain, an external affection, is to be classed with our other sensations; the desire, an internal affection, to be classed with our other emotions of desire. It is not surprising that this pain and subsequent desire should be combined under only one name, appetite, because the two feelings are universally and immediately successive; but this abbreviation of language does not render the *pain* less fit to be called a sensation, as is clear from the definition of sensation—a state or affection of the mind, arising immediately and solely from a state or affection of the body; or, as it is given in another place, a mental affection immediately successive to certain organic affections produced by the action of external things.

Nor does the regularity of the intervals, at which the pain of appetite recurs, prevent us from classing this pain with our other sensations, no more than the stated intervals at which daylight and twilight are perceived, render these visual perceptions a distinct class from others less regular. It is because the body—the nervous system—is only at intervals in the state which immediately precedes or induces the sensation, *e. g.* of hunger, that the appetite is only felt at intervals; if the bodily organs were a hundred times in the day, and at intervals the most irregular, in that state, the painful feeling of hunger, and the desire of food, which has been found, *by experience*, to relieve it, would recur as often; the regularity is therefore a question for the physiologist of the body, not of the mind.

The pains of appetite are an admirable provision of the Author of nature not only for our being but our well-being; the daily waste of the body requires a daily supply of food, if this supply be neglected, or inordinately great, disease would ensue—the pain warns us of the danger, of which the disease would be too rough a monitor, (*see Locke, b.* 2, *chap.* 7, *sec.* 4)—'Though a man knew' says Reid, 'that his life must be supported by eating, reason could not direct him when to eat, or what, how much, or how often: in all these things appetite is a much better guide than reason.'

The muscular pleasures of action and of ease, and their opposite pains, the pleasure of good health, (which, like every long-continued bodily pleasure, is less sensibly felt by habitual enjoyment, but very perceptible on recovery from sickness,) and more of the same kind, belong to the class of external affections, as agreeing with the definition of sensations, though not usually ranked with them, because we find it difficult to ascribe them to any local organ.

LECTURE XVIII.

The widest and most important order of our external affections is that of the feelings commonly termed sensations, and universally ascribed to particular organs of sense. These sensations are the rude elements of all our knowledge—the material on which the mind is ever operating—without which we cannot conceive how it could ever have operated at all, or even have been conscious of its own existence.

Two assumptions have been made in the definition of sensations—first, of the *existence of external things* that affect the organs of sense; second, of *organs of sense* affected by them—though, in strictness of philosophic language, the second assumption is only another form of the first, since, in relation to the sentient mind, the organs, as much as the objects which affect them, are external. All of which we are truly conscious in sensation is the mental affection, the last link of the series in the supposed process. Our '*perceptions*' of organs of sense, or of external things that act upon them—*e. g.* of an eye or a house—are as truly states of the percipient mind, and nothing else, as our emotions of joy and sorrow, to which we never attribute an existence, nor a direct and immediate cause of existence, out of ourselves. By the very constitution of our nature, (*i. e.* by intuition,) or by the influence of associations equally irresistible, it is as impossible for us not to feel this essential reality, or independent existence, in the causes of the *external affections*, (*e. g.* the eye or the house,) as it is to ascribe it to the *emotions*, (*e. g.* the joy or sorrow.)

In referring to the class of sensations, and so to an external cause—a certain number, only, of the mental affections—we proceed, now, in the mature state of our knowledge, with more accuracy than we could have attained at an early age, when our feelings were more recent; we have now a clearer and more definite belief of an external world, and of objects of sensation separate from the sensations themselves. This is one acquisition which our experience of many years has procured us. Another, and still more important one, is the knowledge of our own organic frame, by which we are enabled, in great measure, to verify our sensations—to produce them, as it were, at pleasure, when their external objects are present, and so correct the conceptions which have risen, spontaneously, by the sensations which ourselves produce—thus, when in reverie, our fancies become so vivid as to be mistaken for real external objects, if we stretch out our hand,

&c. the illusion vanishes, because the organ of touch, &c. is not affected in the same way, as we know, *by experience*, that it would be, if the object really existed—so we class the feeling as a conception, not as a sensation; as, but for the correction, we might have done.

But these advantages, which the study of the mind receives from experience, are counterbalanced by disadvantages, perhaps as great, and which are greater from the very circumstance, that to estimate them fully is out of our power. The simple mental states which originally followed corporeal changes were not the same feelings which, in our mature age, we conceive to follow those changes as immediate sensations—(*see Locke, b.* 2, *chap.* 9, *sec.* 8.) In the case, *e. g.* of sight, if it were our only sense, and if no intuitive judgment were added, we could only have distinguished by it the colour of objects, and not, (as we can now,) their magnitude also, and distance. This is proved—first, by reason *a priori*, as the points of the retina have no peculiar connection with one place of bodies more than with another; and secondly, by observation, as in the case of the young man couched by Cheselden. The information, therefore, which is now conveyed by the sense of sight, is different from what was conveyed by it in our infancy. Corresponding differences may take place in respect of all our other senses, and though we should never be able to discover them, this would be no proof of the contrary, since, only in the last century, the difference was discovered in vision. A very evident analogy to these visual acquired perceptions exists in one other sense, at least, *hearing;* for, as in our perceptions of sight, so, also, in sounds a constant reference to *place* mingles; and we perceive the sound to be near or at a distance, &c.; yet we have no reason, from the nature of the organic changes themselves, to suppose that different affections of our auditory, more than of our optic nerves, should give us different notions of distance. As in these two, so in all our senses there may, by their reciprocal influence on each other, or by repeated lessons of individual experience in each, be a similar modification of the original simple feelings which, at our birth, each individual organ separately afforded. Our reasoning, with respect to them, therefore, as original organs of sense, may be as false as would our chymical reasoning, if we attempted, from the qualities of a neutral salt, to infer those of an acid or alkali, which entered into its composition. Could we meet such a society as Diderot speaks of, our doubts might be removed—'what a strange society would five persons make, each of them endowed with one, only, of our five senses, and no two of the party with the same sense...... differing, as they must differ, they would treat each other as madmen.' He further justly remarks, 'in one science, only, they might agree, that which has relation to the properties of number!'

Sensation, in its popular use, is confined to feelings pleasurable or painful, but its philosophic use extends to every mental affection, which is the immediate consequence of an impression on our organs of sense, and by much the greater number of these, and the most

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valuable, even with regard to our happiness, are neither agreeable nor disagreeable, but what Reid calls indifferent. Most of the objects of vision, for example, excite indifferent sensations, though they may afford *indirect* pleasure as communicating valuable information, or gratifying curiosity—thus, in reading an agreeable book, it is not the series of sensations, excited by the alphabetical characters, which *directly* produces our gratification.

The sensations that are indifferent are, as Reid remarks, useful as signs to distinguish things that differ. It is as signs, indeed, that all our sensations are chiefly valuable. Reid exemplifies their use by the sounds—Brown by the symbolic characters of language: dews fall insensibly, yet to them the loveliest flowers owe their beauty—so it is with written characters—the sensations which they excite are indifferent, yet they themselves occasion our greatest enjoyments.

That susceptibility, through which the mind is capable of being affected by changes of state in our mere bodily organs, is, in every sense of the word, of *primary* value in our mental constitution. To the individual it may be said to be in itself all the things which are round him, however near or afar, because by it, alone, all things near or afar become known to him. By the mutual relation which it establishes, the great gulf which separated the worlds of matter and spirit disappears, and substances are linked together which seemed, in their nature, incapable of any bond of on. Thus the whole infinity of things is brought within the sphere of our mind, communicating to it some faint semblance of the omnipresence of its Author.

LECTURE XIX.

In the process of sensation the last part alone, the mental affection, belongs to the mental inquirer to examine, if this last part of the process had resulted from any other affections of organs constituted in any other manner, as long as there was the regular correspondence of certain mental with certain organic affections, the philosophy of mind would have continued precisely the same as now; still, the corporeal part of the process, on account of its intimate connexion with the mental part, requires some attention.

The great essential organ of all sensation is the brain, with its appendages, particularly the nerves that issuing from it, extend to what are more strictly termed the organs of sense, as it is there the immediate objects of sensation come into contact with the sensorial substance. Since the blind are sensible of sound, the deaf of colours, and both of smell, taste, touch, there must be some difference either in the sensorial substance itself, which is diffused over the different organs, or in the mode of its diffusion and exposure in the different organs from which this diversity of their relative sensibilities proceeds. The nervous matter, however, considered separately from the coats which envelope it, is of the same half fibrous but soft and pulpy texture, as the substance of the brain itself, with which it is in perfect continuity, forming with it one mass, which has for its chief seat the great cavity of the head, but which extends, by innumerable ramifications, over the whole surface and through the internal parts of the body. The mind, supposed to reside in that central brain, and communicating with all these remote branches, has been compared by Gray to the ocean receiving, from innumerable distances, the waters of its filial streams.

In the central brain there are many complicated parts, the purposes of which are unknown; indeed the only information of importance, in reference to the corporeal part of the process of sensation which physiology affords us, is, that when the brain itself is not in a sound state to a certain extent, or when the nerve diffused on a particular organ, is at this extremity, or in any part of its course impaired by pressure or disease to a certain degree, or its continuity severed, then there is no sensation, though the same external causes be applied.

The brain, and various nerves of sense in continuity with it, taken together, may be considered to form one great organ, which Dr. Brown calls the *sensorial organ*, essential to life and to the immediate production of sensations, and perhaps modifying directly or indirectly all the other phenomena of the mind.

Of the nature of the connexion between this sensorial organ and the mind, all that we shall ever understand is the simple fact, that a certain affection of the rvous system precedes, immediately, a certain affec- n of the mind. But though we are wont to regard such mutual successions of bodily and mental changes as peculiarly inexplicable from the different nature of the substances reciprocally affected, it is really not more so than any other succession of changes, even in similar substances; since in no instance can we perceive more than the uniform order of the succession itself, and this succession is, in all cases, absolutely inexplicable—*i. e.* absolutely simple, and therefore unsusceptible of further analysis. That a peculiar state of the particles of the brain should be followed by a change of state of the sentient mind is truly wonderful, but not more so than that the arrival of the moon at a certain point of the heavens should alter the state of the waters of the ocean at our earth.

The nature of the change produced at the extremity of the nerve we cannot guess, or how this affection of the nerve is communicated to the brain, if it be communicated. Before Brown wrote, it was universally believed that the affection was *gradually* propagated along the nerve—that the sensation or mental affection was not produced until after the communication of the motion, or bodily affection,* whatever it was, to the central brain—and that the sensation was the effect of the state of the mere central brain alone, and not depending at all upon the state of the nerves at the same instant. He conçeives that there may be no such *progressive* communication, but since the brain and nerves consist of the same soft, pulpy substance, and it is not supposed that the connexion of the mind with the body depends on the state of some one physical point of the brain, but extends to more, the sensation may be the *instantaneous* effect not of the state of the brain only, but of the state of the brain and nerve simultaneously—at the *instant* after the presence of the immediate object of sense at the organ—just as (to use our former illustration) the presence of the moon or sun, &c. at a certain point of the heavens, affects, instantaneously, the remotest and nearest gravitating particles of the earth. A third conjecture—for all respecting this matter is conjecture—may be formed, viz. that in sensation there is no affection of the central brain at all, neither immediate nor progressive, but that the affection of the

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* What Brown here calls *affection* Reid calls *impression;* 'in perception' he says 'the object produces some change in the organ, the organ produces some change upon the nerve, and the nerve in the brain—(observe the gradual propagation.) We give the name impression to these changes, because we have not a name more proper to express, in a general manner, any change produced in a body by an external cause, without specifying the nature of that change, whether it be pressure, or attraction, or repulsion, &c.—still it may be called an impression, but with

regard to the particular kind of this change or impression philosophers have never been able to discover any thing at all.' Our Author thinks the term *impression* not to be so unexceptionable as Reid considered it, since it seems to convey too much the notion of a peculiar well-known species of action: and that notion the one which has had so pernicious an effect in the theory of perception. Still he allows this term to be a little more general than the other names of action to which Reid alludes. He also admits the justness of Reid's reason for the use of this term *impression*, since a phrase which expresses the least possible knowledge, must be allowed to be the best suited to human ignorance.

nerve alone is instantly followed by sensation. Against this no objection can be drawn from the fact, that disease of the brain, or separation of the nerve, &c. prevents sensation, for sensation may require a sound state of the nerve, which these injuries perhaps destroy—a sound state of the whole sensorial organ, by analogy from grosser organs, may be thought necessary for the healthy function of each part. This third conjecture acquires an air of probability, from consideration of the soft nature of the nerves, and of the substance in which they are loosely imbedded, so very unfit to communicate those nice varieties of motion which sensations, so distinct from each other, and so true to the slightest changes of the external objects, might require. But whether this supposed link of the process of sensation be removed or no, there is a prior link, which it is important to separate from the chain—to it we proceed—

'A second law of our nature regarding perception' says Reid 'is, that we perceive no object unless some impression is made upon the organ of sense, either by the immediate application of the object, or by some *medium* which passes between the object and the organ.' In *touch* and *taste* he tells us the application is immediate, but in the other three senses the object is perceived at a distance by means of a medium—*e. g.* the rays of light coming to the eye, &c. What Reid calls a medium is the real object of sensation; the reference to the distant object is owing to another principle—namely, association. This very misconception of the real external objects of senso, with the other concerning complicated changes in the nerves and brain, gave rise to the different theories of perception, which have had so fatal an effect upon the progress of mental philosophy; hence the importance of clear views of even the corporeal part of the process: still the popular phraseology—of *e. g.* 'seeing the sun' like that of 'the sun's setting,' is not objectionable, provided we understand the true nature of the case.

LECTURE XX.

One of the advantages, partly compensating the difficulties which *early associations* throw in the way of the intellectual inquirer, is a more accurate view of the extent of the class of external affections, since, but for our previous belief of the permanent existence of external things acquired from other sources, we should have classed many of the feelings, which we now ascribe to sense, among those which arise spontaneously, without any cause external to the mind itself. Thus, when the particles of odour proceeding, *e. g.* from a rose or hemlock, &c. affect our nerves of smell, a certain state of mind is produced, which, had we not previously *seen* or *handled* the rose or hemlock, or at least some other bodies which excited at the time sensations analogous to the present, would have been a simple feeling of pleasure or pain, which we should as little have ascribed to an external cause as any of our spontaneous feelings of joy or sorrow. The connexion of our sensations of fragrance with the bodies which we term fragrant has been now fixed in our mind by innumerable repetitions, and we immediately refer the sensation to its external cause; but still if we attend to the process of the reference we are conscious of remembrance, and can separate the sensation as a mere feeling of the mind from the knowledge of the object, which seems a subsequent state of mind; and, indeed, what can we discover in the mere sensation of fragrance that is itself significant of extension, solidity, or whatever we think essential to the existence of external objects?

The same remarks are equally applicable to the senses of *taste* and of *hearing*. It is not because we have had the sensations of sounds or tastes—no more than of smells, that we believe in the existence of an external world; but it is because we have previously believed in an external world that we consider these to be sensations, *i.e.* to have an external cause. By the common influence of association these sensations now suggest external causes, as when we see ashes and dying embers, we immediately infer some previous combustion, which we could not have inferred if combustion itself had been a phenomenon previously unknown. If, again, joy or sorrow always arose at the moment we tasted, &c. some particular species of external object, and at no other time we would, by association, have been induced to rank them also as sensations.

In considering the sensations of taste it is necessary to make some little abstraction from the sensation of touch which accompanies them, in consequence of the immediate application of the tangible sapid body to the organ; but the sensations thus co-existing are so different as to be easily distinguished. We may also remark here that the sensations of taste and touch have a greater mutual resemblance than those of any other two senses. In estimating the advantages from these two senses, which from their frequent recurrence are of no inconsiderable amount, we may remark how largely the fragrance of the fields enters into the images of spring and summer. The pleasures also, moderately enjoyed, of the social board, may be mentioned, the frequent meeting at which is no small part of the remembrances of friendship among the civilized—and among some half civilized countries in which the influence of simple feelings is at once stronger in itself, and less obscured by frivolous fashions, &c. this forms one of the strongest ties of obligation. Another advantage derived from these two senses is the guiding us in our choice of wholesome food which we learn by these to distinguish from what is noxious after we have once learned the difference by experience, though not instinctively before experience, like other animals which have not the use of general language and the other great powers allotted to man.

Our sense of hearing affords a striking specimen of that almost infinite variety which is not inconsistent with the closest resemblance—the same tone, sounded by a flute, a violin, &c. are, as Reid observes, easily distinguished: nay, if twenty human voices sound the same note, and with equal strength, there will be some difference.

Of the value of the sense of hearing enough is said, in observing that to it we indirectly owe verbal language, a power so peculiarly distinctive of man, that in Grecian poetry he is designated μεροψ ανθρωπος, the *divider of the voice*—a power that in its fugitive state imparts the chief pleasure to our social intercourse, but that is far nobler still in the permanent transmission of thought which gives to each individual the united wisdom of all ages and nations. In this there is a true metempsychosis, that the poet and sage in spreading their thoughts and emotions from breast to breast, may be said to extend their existence through an ever-changing immortality. There is a chain of the thoughts of human kind from the first ages of the world to the moment at which we exist—a chain not less universal than that of the generation of every being that lives; and through thousands of years' opinions have been transmitted to us, of the authors of which we are as ignorant as of the coeval ancestors of our race. The sun which is setting in one place is rising in another, and so from the unlimited transmission of thought by language, the opinions which are perishing in one mind are rising in another.

LECTURE XXI.

Language is, beyond all question, the most important benefit from the sense of hearing, yet that sense affords us much pleasure as being also the source of musical delight. Music, although but a pleasure of sense, has yet so many striking analogies to the intellectual enjoyments, that it may be almost said to belong to that class. It may be said to be the *intellectual* luxury of those at least who are incapable of any other luxury which deserves so honorable a name.

Of the temporary influence of music as a source of tranquillizing delight there can be no doubt, nor perhaps of its occasional efficacy in exciting stronger emotions, when the mind is predisposed to them, in a high degree; but many ancient anecdotes of this kind are doubtless as fabulous as is the existence of that god of music to whose interposition they were attributed.

The striking diversity of organic power in the perception of melody, and still more of harmony, which is seen in different individuals, is a fact hitherto unexplained. Whence is it that some have no ear for music who yet can hear the slightest whisper, and can distinguish between tones of anger, mirth, &c. and even be good poets (*e. g.* Dr. Johnson) and orators, and therefore must have a quick discernment of metrical rhythm and of the melody of elocution? The explanation of a similar defect in the sense of vision (the incapacity of distinguishing from each other some colours, which to general observers seem of an opposite kind) has been, with some success, attempted, by attributing it to peculiarities in the structure of the eye: probably, then, the defect of musical ear depends upon the external organ of hearing, which is of like complicated construction. In our endeavour to account for his defect we must examine the external cause of nd—*vibration*—a single word, yet expressive of a plurality of states, since it means the successive pulses, or alternate approaches and recessions of the particles of the air, or other elastic sounding body. 'Vibration is necessary to produce sound'—what does this mean? It means that the state of the bodily organ, immediately preceding the affection of the mind—hearing—and therefore, the cause of that affection is not produced by one stroke or approach of the particles of air; the air approaches—recedes—approaches—recedes again; so on—no corresponding affection of the mind has yet ensued—until at length the organ is brought into the proper state, and hearing immediately follows: the first appulse did not produce this effect, or there would be no need of *vibration*—*i. e.* of a series—yet it changed the state of the organ; the second appulse, acting upon this changed state, made another change; and so on—each stroke (as on a gong) bringing the already affected organ nearer to that final state which immediately precedes the sensation of hearing.

To this successive modification of states of an organ, terminating in a result different from each of the prior states, there are many analogies in the history of the mind; one of the most remarkable is the production of the sensation of whiteness, by rapidly turning a cylinder painted with the separate prismatic colours in due proportions, each colour acts upon the organ already affected by the former colour, until a sensation, altogether different from the result of each of them, when separate, is their joint ultimate result—the sensation of whiteness without any external object that is white.

Now, as it is thus *gradually* that the external organ of hearing is brought into the fitting state, its return to the original quiescent state may also be gradual, so that if, while the effect on the organ of hearing from the first vibration is dying away, a second vibration be excited by the pulse of some sounding body, the effect may be different from what it would have been had the organ previously attained its quiescent state.

Touch the palm of one hand with the fingers of the other, you are not tickled, move them rapidly along it, backwards and forwards, you are; if the parts first affected return to their original state before others begin to be affected, or themselves to be affected again, you are not tickled. Nothing can be more analogous to the vibratory affections of the ear; the parts of the palm first affected are again, ere the effects of the first touch have died away, affected with different degrees of pressure—so in melody, the ear is successively affected by varieties of vibration; various parts of the palm exist, at the same moment, in various states, forming one joint result of sensation—so in harmony, various vibrations of the organ of hearing co-exist and blend together; if the effects of the first touch have had time to die away before the second begins, you feel the *touch*, nothing more, no tickling; if the effects of the first vibration have had time to die away before the second commences, you hear a *sound*, nothing more, no melody. Some persons are not ticklish, some are—in the former, perhaps, the tactual organ returns so quickly to the quiescent state that the effects of the first impression have died away before the second can commence; while in ticklish persons, that organ returning more slowly to the quiescent state, being more tenacious in these persons, or more susceptible, has not reached it when the rapid impression is repeated, and is therefore, at every new impression, affected in a different manner. Is it not possible, that in those who receive no pleasure from music, as in those who are not ticklish, there is a rapid return of the nervous organ, after each separate affection, to its original state? A certain interval is necessary for distinct hearing, and before this interval has passed the auditory nerves may be again quiescent?

All that is attempted to be accounted for here is the *original* defect of pleasure, since, if the relation of notes, as reciprocally high or low, never gave any delight, the ear, having no object of interest in these successions, would soon habitually neglect them, and at length cease altogether to distinguish them; as, after living long in a province, we become unconscious of any peculiarities of accent. Long practice gives the refined musician a power of distinguishing nice differences of sounds imperceptible to a common musical ear; in like manner, that common musical ear may itself be greatly indebted to attention for those less refined differences which it is capable of making, but of which an unmusical ear is altogether unconscious.

LECTURE XXII.

Though the sensations of the same organ, *e. g.* of touch, are not in every case more analogous to each other than those which arise from affections of different organs, and though if we considered the sensations alone, therefore, without reference to the organs, we might not class them precisely as at present—yet the division, according to the organs affected, (viz. those of the five senses,) corresponds too exactly with what we should make were we to class the sensations merely as affections of the mind, and affords in itself a principle of classification too obvious and definite to think of any other. The lines of difference between distinct classes should be well marked in every science, and especially in the science of the mind, where the shadowy and fugitive objects flit from us in the very glance that endeavours to catch their scarce perceptible outlines.

Having considered smelling, tasting, and hearing, there remains to consider sight and touch: sight, as more simple and analogous to the three former, might claim priority over touch, were we only to consider the original sensations of each organ. This would then be the more regular order, but not when we attend to their subsequent modified sensations, since those of vision greatly depend on the prior affections of touch. However, even in considering touch first, we must sometimes for illustration refer to the phenomena of vision, but this anticipation is unavoidable where the phenomena are so complicated. Aristotle is mistaken in saying sensation is a *straight* line, *Αἴσθησις γραμμὴ, νοῦς κυκλος*—or as Cudworth has it, sense is like a line which is the flux of a point running out from itself; but intellect like a circle that keeps within itself—for though sense is not a circle since it terminates in a point, yet, far from being a straight line it is a most perplexing curve, crossed and cut by various other curves, with many of which it unites so completely that on reaching its end it is almost impossible to determine what curve it is which in the strange confusion of our diagram we have been attempting to trace from its initial point.

The sensations of heat and cold are so different from those of extension, figure, &c. that some physiologists conceived that the former could not proceed from the same organ, *viz.* from touch—the sensations of extension, &c. they never hesitated to ascribe to that organ; but the dissimilarity of sensations gives no *reason* to suppose them to come from the same organ; on the contrary, if the brain be ultimately the great organ of all sensations, then still greater variety proceeds from the same organ. *Experience* too, as far as we can safely refer to it in this case, shows some sensations always referred to tactual nerves, as different from those of extension, &c. as heat and cold are; such is the pain of puncture, or laceration of the skin.

But those very sensations of extension, figure, hardness, &c. which others never hesitated to ascribe to touch, Brown refers to a different origin, and he thinks that all the primary original feelings which we really owe to the mere organ of touch are analogous, not to those of extension, &c. but to warmth. To heat and cold, also to the pain of puncture or laceration, the remarks applied to smell, &c. (see page 107,) are equally applicable. Had we no other sensations, than heat and cold, we should never have attributed them to a corporeal cause any more than we do joy or sorrow.

The qualities of bodies *supposed* to be made known to us by touch are reducible to two, RESISTANCE and EXTENSION. *Hardness* and *softness* only express greater or less *resistance*—*roughness* is irregularity of *resistance*, when there are intervals between the resisting points, or when some of those points project beyond others; *smoothness* is uniformity of *resistance*—*liquidity* and *viscidity* express certain degrees of yieldingness to our effort which *solidity* excludes, unless when that effort is violent. In the same way with *extension*, *figure* is its boundary; *magnitude* is what it comprehends, and *divisibility*, if we consider the continuity of parts which we divide, is *extension* itself under another name. Excepting *motion*, then, which is not permanent, but accidental, and the knowledge of which is secondary to the knowledge of our organs of sense, before which bodies are said to move; and what is more important, secondary, as resulting not from any direct organic state of one particular moment, but from a comparison of sensations past and present—all the information which we are *supposed* to receive primarily and directly from touch, relates to modifications of resistance and extension. Nevertheless, the terms hardness, softness, &c. are convenient, they express notions of states of bodies that are easily distinguishable; but though specifically distinguishable, they are all, as we have seen, reducible to the two genera already mentioned.

To what source should we ascribe the origin of our knowledge of resistance and extension? The general opinion is to *touch*, because it is impossible for us *now* to have a body impressed upon us without the immediate notion of something external and extended. But it is as impossible to open the eyes, without perceiving the long line of landscape before us; yet we know that all which we *immediately* perceive is the small number of rays of light which impinge upon the eye, and that the notions of varieties of visible magnitude, distance, and figure are merely suggested by association, in consequence of being frequently excited, *at the same time*, with particular sensations of colour, though from a different source. The immediate sensation, then, in touch also, though, like colour, it may now seem inseparable from extension and *outness*, (to use Berkeley's term,) might, like colour, have been *originally* distinct from them, and equally incapable (until, by uniformity of association, it became significant of them) to teach us the existence of impressing bodies. Analogy, then, from vision, shows that the reason why we seem to perceive the varieties of extension and resistance immediately by touch only, may be in consequence of the original simple tactual feeling having become their representative from association.

In speculating on the information which our senses separately afford us, we must think of only that state of absolute ignorance when we knew no more the existence of our bodily organs than that of external things. In this state we cannot know that *different physical points* of our organ of touch are affected by any impressing surface, that these points are contiguous, and that therefore, the mass affecting them must itself consist of contiguous points. A certain feeling, peculiar to touch, without regard to the extent or quantity of the surface impressed, will be excited in our minds, as in colour a certain sensation is excited peculiar to vision, without regard to the extent of the part of the retina on which the light may have fallen. This simple feeling alone constitutes the direct elementary sensation of touch. The form or continued extension of the impressing surface not being discoverable by touch, until we first learn, *by experience*, (*i. e.* by the recollection of feelings previously co-existing, or immediately successive,) the vicinity of the physical points of our own tactual surface thus impressed; had we the sense of touch only, we could scarcely have been sensible of extension.

As all our language is adapted to a system of external things, and there is no distinct vocabulary of scepticism, the most cautious inquirer must often be obliged to express his doubt or dissent in language that implies affirmation. Thus, in analyzing the senses of smell, taste, hearing, and touch, we have spoken of external objects as if believing them to have real existence, though we have not been able to detect, in the sensations considered, any circumstances confirming that belief. But observe, this belief is not assumed to exist in the mind of the infant, whose intellectual acquisitions are the subject of inquiry, for then the inquiry would be superfluous, but only in the mind of us, the inquirers, who could not even speak of the infant itself without making that assumption.

Whence this belief then, or is it from touch? Suppose a small body of any shape—*e. g.* a cube to be pressed, for the first time, upon the hand of a being endowed with every sense and faculty of the mind, but not with any previous knowledge of his own corporeal frame, or of things external, and let it be of the same temperature as the hand itself, that all consideration of heat and cold being excluded the feeling produced may be as simple as possible—what would that feeling be? A simple feeling capable of arising from the affection of a single point of our organ of touch—a feeling that varies with the quantity of pressure, as the sensation of fragrance varies with the number of odorous particles, but as little involving the notion of extension. Though the connexion of this feeling with that notion is now (we may say) indissoluble, we may form a pretty accurate conception of what it was by itself, by the gentle gradual pressure of a small body—*e. g.* the head of a pin—and even after all the intimate associations of experience, the sensation thus excited will scarcely, if at all, involve the notion of figure or extension.

But, as the pressure against our organ of touch of so large a body as the cube now awakens, as it were, immediately, the sensations of hardness and form, may not the knowledge of resistance and extension, and consequently the belief of the essential qualities of matter, be originally communicated by affections of this organ?

The *organ of sense*, to which Brown attributes *the feeling of resistance*, is our MUSCULAR FRAME. The sensations of this class are, in common circumstances, so obscure as to be scarcely heeded or remembered; yet, probably, every contraction, even of a single muscle, is attended with some faint degree of sensation that distinguishes it from other degrees of contraction of the same muscle, or from those of other muscles—not that we can perceive or number our muscles, or, when many of them are acting together, distinguish each from each—but that a certain feeling accompanies each particular motion of the visible limb. The feeling may be complex when arising from various muscles, but it is considered by the mind as one, and distinguishable from every other feeling accompanying every other degree of contraction. Just as a blind-man, walking for the first time in a flower garden, may distinguish the fragrance of one parterre from another, though he might be ignorant of the separate odours united in each, and even might consider as one single perfume what was the mingled product of a thousand.

But in some circumstances our muscular sensations are not obscure, but very perceptible—not to mention their painful sensibility, if diseased, for this may not be a fair reference—observe the feeling of fatigue, when the repeated contractions of a limb long exercised, without sufficient intervals of rest, is accompanied with a sensation which gradually increases to severe pain; but even without fatigue, make any single powerful effort and you will be conscious of the muscular feeling. Such, also, is the pleasure of moderate activity, and thus we find that the muscular frame is not merely a part of the living machinery of motion, but also, truly, an organ of sense: on moving the arm without resistance we are conscious of a certain feeling; when the motion is impeded by the presence of an external object we are conscious of a different feeling, which the mere sense of touch may partly but not entirely produce, since, when the same pressure is made by a foreign force, without any muscular effort on our part, the general feeling is very different. It is the feeling of this resistance to our progressive effort, combined perhaps with the mere tactual feeling which forms our feeling of solidity or hardness; without it the mere tactual feeling would, like the effect on the same organ of different degrees of heat, be merely a sensation disagreeable, indifferent, or agreeable.

Suppose the cube then pressed for the first time on the hand, a certain sensation is excited, but not that of resistance *which always implies a muscular effort that is resisted,* and therefore not that of hardness which is a mode of resistance; but if we make an effort to press against the cube, the case will be different; our effort being impeded, the consequent feelings of resistance will arise, which co-existing in every effort with the particular sensation of touch, might afterwards be suggested by it on the simple recurrence of the same sensation of touch, without the renewal of any muscular effort on our part; just as the angular surfaces of the cube are suggested by the mere plane of colour which it presents to our immediate vision, and which is all that our immediate vision would of itself have made known to us.

We proceed now to EXTENSION. Two methods may be imagined of referring our first knowledge of this to the sense of touch. First, that the notion arises from the similarity of the part of the organ of touch, which is compressed to the surface which presses on it, *e. g.* the square base of the cube. But the fallacy of this explanation appears by considering that the feeling is not a state of the organ, but of the mind, which has as little resemblance to the square shape as that other state of mind—the sensation of fragrance of a rose—has to the shape of the odorous particles or of the organ of smell. This false explanation assumes the knowledge which touch is supposed to give, to be in the mind before the very touch which is supposed to give it; say that the base of the cube compresses a hundred continuous physical points of the hand, and that we thence acquire a notion of its squareness: if now a hundred points, not continuous, be compressed by some irregular and uneven surface, the want of continuity can make no difference, since, being ignorant of our bodily frame, we know nothing of the vicinity of the points in the one case, or their discontinuity in the other; therefore we should have here, too, the notion of a square when no square exists.

Moreover, if the notion of extension in general, or of figure, which is limited extension, arose whenever a part of the nervous expansion was affected in any way, we should have those feelings not from touch alone, but also from smell, taste, hearing, since there, too, the part of the nerves affected is of a particular extent and shape. It will be vain to allege that there may be something in the nature of the organ of touch more than in that of smell &c. that impresses the mind immediately with a sensation corresponding to the shape in which this sensorial organ may exist, for this organ exists at every moment of a certain shape, yet we have no perception of its shape so as to be able to delineate its whole extent as we could the impressing square; but if it be said that the configuration of the organ in its quiescent state, excites not this mental affection, but only when itself is affected, we may remark that we are equally unable to delineate it when exposed to the action of heat when surely it is not quiescent.

The other and only philosophic mode of attributing to touch the knowledge of extension, is to suppose the mind to be so constituted originally, that its affections should correspond with the affections of the bodily organs; thus, the mental state of perceiving the square would arise immediately when the organ of touch is affected in a certain manner, just as the mental state of smelling the rose arises when the organ of smell is affected in a certain manner. But there is a test which proves the insufficiency of this explanation—it is this, apply to the organ of touch some body not seen, and if its shape be at all irregular it will perplex us to determine it, though by sight, which is less immediately perceptive of form than touch is supposed to be, we could determine it at once. It is only when the figure is very simple, like the square, that we can thus determine it when unseen, and even of simple figures we cannot thus determine the magnitude. Now this test decides the question, for if we determined figure as immediately by touch, as we do colour by sight, &c. we should have distinguished the irregular figure as well as the square, we may then conclude that it is only in consequence of more frequent experience that we are thus able to distinguish the simpler forms, which as mere forms are not more direct objects of the sense of touch than forms the most irregular, and that without such experience the mere sense of touch is incapable of informing us of the figure of bodies immediately and originally.

LECTURE XXIII.

The analogy is very striking between the perception of distance by the eye, and that of figure by the touch. In each case the perception appears to be immediate, (so that we cannot separate extension from either colour or touch,) while it is really owing to experience, and as the eye is often deceived in judging of greater distances, while in the less ones, with which it is familiar, it is pretty accurate, so it is with the touch in respect of strange unseen figures. But the analogy is chiefly valuable as showing the close union which may be formed of feelings that have in themselves no resemblance—what common properties could we have conceived between vision and blindness from birth !—yet the perceptions of the blind, in consequence of the power of association, form the most important part of those of vision.

This assertion may appear paradoxical—but every analysis of sensations which is at all accurate must present the appearance of a paradox—because the object of the analysis is to show that sensations, apparently simple and direct, are not simple, and that our senses are not fitted of themselves to convey that information which, through the whole course of our memory, they have appeared to us to convey; we should not, therefore, be surprised if the element, which seems the most important constituent of the notion of extension, should at first, like the assertion about the perceptions of the blind, seem a very unlikely one.

That element is our feeling of succession or time—a feeling *which necessarily involves the notion of divisibility or series of parts—to which notion, if the notion of resistance be added, we have, by the union, the very notion of physical extension or* MATTER, which may be defined—that which has parts and that which resists our effort to grasp it.

By memory we are capable of thinking of a series of feelings as successive to each other, this succession frequently repeated suggests, immediately, the notion of length, (which is only another name for continued divisibility,) not metaphorically, as is generally said, but absolutely. In looking back on the years of our life we must, since they form a progressive series, regard them as a sort of length in the same manner as a journey of many hundred miles, and we can divide the one series into its parts of joys, hopes, sensations, &c. as we can divide the other into its parts of hills, rivers, &c. Continuous length and divisibility, those great elements of space and of all that it contains, are thus found in every succession of our feelings. There is no language in which time is not described as long or short, not metaphorically—no metaphor could be thus universal and inevitable as a form of human thought, but because we cannot consider succession without the notion of progressive divisibility attached to it—and it appears as absurd to suppose, that by adding the retrospect of a week to that of the preceding month we do not as truly lengthen the succession, as that by adding the last stage to a journey we do not increase the line of distance. We might as well call the roundness of a sphere a metaphor.

Time or succession, then, involves the notions of length and divisibility, and also without the notion of any thing external, since, had the mind been susceptible of only internal feelings, hope, joy, fear, &c. it could still have considered them as progressive. *The notion of time, then, is coeval with the mind itself*, since it is implied in the knowledge of succession, by which alone the mind comes to know its own reality, as something more than the mere sensation of the moment. Instead, then, of deriving the measure of time from extension, we derive that of extension from time, since this notion of time precedes those of external things, and involves those of length and divisibility.

But if the notion of time be the chief element of that of extension, and if touch excite the latter merely by association, it must, of course, be associated in a peculiar manner with the former; the source of this association between the simple sensations of touch and the notion of time, we now proceed to explain.

The hand is the great organ of touch; in shutting or opening it gradually we find a certain series of feelings varying with each degree of the opening or closing, and giving the notion of succession of a certain length; the same occurs in extending our arms in various directions and closing them again; now, the most remarkable thing to be observed about infants is the constant motions of their fingers and arms. Thus they become so well acquainted with the progress of feelings accompanying the opening and shutting of the fingers, &c. as to distinguish each degree of contraction, and at last to associate each with the notion of a certain length of succession, just as shades of colour become associated with different notions of distance.

When these series of muscular feelings are become so familiar to the infant that the whole series is anticipated and expected as soon as the motion is begun, let, now, a ball or other substance be placed, for the first time, in his hand—he feels that the usual series of sensations does not follow his will to renew it—he knows how much of the accustomed succession is still remaining, and the notion of this particular length, which was expected and interrupted by a new sensation, is thus associated with the particular tactual feeling excited by the pressure of the ball, and by frequent repetition the two feelings flow together as in the acquired perceptions of vision.

If we had but one muscle we could scarcely have associated with touch any other dimension but that of mere length, but our various muscles in various parts enable us to perform motions in various directions at the same instant, and thus to have co-existing series of feelings, each of which series was before considered as involving the notion of length; thus a rude notion of length, breadth, and thickness will be acquired, which will gradually become more and more precise. In vision this gradual acquisition, even in mature life, of nicer perceptions of distance by experience is very evident in some professions, where it is requisite.

If any one think the notion of time superfluous in this theory, and that with the muscular feelings the notion of particular lengths may be connected immediately, the following experiment will probably show his mistake: with eyes shut let him move his hand quickly along any smooth hard surface—it will appear of a certain length—let him move it along it again very slowly—it will appear considerably longer. This experiment, we will not say decides the question, that may be too presumptuous, but at least strongly corroborates the theory, for it shows that even after all the acquisitions which our sense of touch has made, the notion of extension is still modified in a manner the most striking and irresistible, by the mere change of accustomed time.

LECTURE XXIV.

Having shown the mode by which we suppose an infant to acquire the notions of *extension* and *resistance*, we can now account for the belief of *external reality*—*combining the notions of extension and resistance* (notions which arise in circumstances that must lead to their combination) *in something which is not ourselves*—*is to have the notion of matter.*

The infant stretches out his arm for the first time by a volition without an object—a mere instinct perhaps—the motion is accompanied with a certain feeling—he repeats the volition a thousand times; the same progress of feelings ensues. In this repeated progress he feels the truth of that *intuitive* proposition which, through life, is to be the source of all his expectations and the guide of all his actions—that what has been as an antecedent will be followed by what has been as a consequent. At length he stretches out his arm again, and instead of the expected progression there arises, in the resistance of some object opposed to him, a feeling of a different kind, which, if he perseveres in his effort, increases to severe pain. The difference, we may suppose, astonishes the little reasoner, for the expectation of similar consequents from similar antecedents is observable in his earliest actions, and probably is the result of an original law of mind as universal as the law by which certain sensations, *e. g.* of sight, immediately result from certain affections of the eye. To a being impressed with this belief a different consequent must imply a difference of antecedence; but the infant, who as yet knows nothing but himself, is conscious of no previous difference, and the feeling of resistance seems to him, therefore, *something unknown, which has its cause in something which is not himself.*

The application of such grave and learned terms to the reasoning of a child, perchance, may sound ridiculous, but we are to recollect that the reasoning itself, as distinguished from the *terms* describing it, is both simple and natural. Neither is it wonderful that the notions of extension and resistance, thus acquired from progressive contraction of muscles, and the difficulty opposed to their accustomed contraction, which introduces, suddenly, a new feeling, should only be combined with sensations of touch, and not, also, with those of smell, &c. when we reflect that only in the case of touch there is the frequency of co-existence or immediate succession, which is necessary to the subsequent union. We might as well ask, in the case of acquired perceptions of vision, why do we not *smell* the exact distance of a rose? And the only possible answer would be, because there has not been in smell that exact and frequent co-existence which has been in vision.

If our theory be correct it is not by any peculiar intuition we are led to believe in the existence of things without. This belief is the effect of that more general intuition by which we consider a new consequent in any series of accustomed events, as the sign of a new antecedent, and of that equally general principle of association, by which feelings that have frequently coexisted flow together, and constitute, afterwards, one complex whole. But the belief of an external world, whether this way got or no, was certainly got long before we can remember, and is now impossible to reject.

The zeal and acuteness of Berkeley, therefore, in support of his system, are vain; even in publishing his work, with the desire of instructing and converting others, the great and primary convert was yet to be made in himself. In their *practical* conduct, all who have been sceptics as to the existence of an external world, as well as Berkeley, Malebranche, Pyrrho, (the founder of this philosophy,) have always taken for granted that existence, like other mortals, however strongly their speculative doctrines, lean to the other side.

But it was not as a sceptic that Berkeley desired to be ranked; on the contrary, he thought his system an antidote to scepticism. He wished to expose the sophistry of materialism, and present an additional argument for the existence of a divine omnipresent mind; and he would have afforded an irresistible one had our mere ideas been what he thought them—not states of the individual mind, but separate things existing in it, and capable of existing in other minds, but in minds alone. Having, as he thought, these ideas, which did not perish when they ceased to exist in his mind, since the same ideas recurred at intervals, he deduced, from the necessity which there seemed for some omnipresent mind in which they might exist during the intervals of recurrence, the necessary existence of the Deity.

The existence of ideas as separate from the mind, and their permanent existence when they have ceased to exist in the individual mind, are assumptions as gratuitous as the assumption of the existence of matter could be, or rather these ideas are matter under another name, and to believe that these foreign independent substances exist in the mind is not to intellectualize matter but to materialize intellect. A mind, capable of containing a multitude of foreign substances at the same moment, is not that simple indivisible existence which we term spirit; the notion of recipiency is as little consistent with the notion of mind as the notion of hardness or squareness.

The whole force of Berkeley's demonstration of the existence of a deity is therefore obviated by the simple denial, that ideas are any thing more than the mind itself, affected in a certain manner; since each idea can exist no longer than the mind is affected in that particular manner, and to say that our ideas exist in the divine mind, would be thus to say only that our mind itself exists in the divine mind. There is not the sensation, *e. g.* of colour, in addition to the mind, but the sensation of colour is the mind itself, existing in a certain state.

The most philosophic scepticism as to the existence of external things, is that which is founded on this correct view of mind, which says, 'all the terms we use to express varieties of thought signify affections of the mind, and nothing more; my mind, affected in a certain manner, whether it be what is termed sensation, or knowledge, or belief, can still be nothing more than *my mind* itself, existing in a certain state.' This argument, like the strange conclusions legitimately drawn from the doctrine of the infinite divisibility of matter, and various other physical and mathematical applications of infinity, is unanswerable by mere argument. Yet, in none of these cases do we find our belief shaken—being founded either on associations as early, strong, and indissoluble as those which we have been tracing, or else on principles of direct intuition, that species of internal revelation, (see page 70,) which gives to reason itself its divine authority. We only smile at conclusions in which it is impossible to detect logical error, but which from the constitution of our nature, it is physically impossible for us to admit.

Sir Wm. Jones informs us, that a system of idealism very like Berkeley's, is to be found in the metaphysics of Hindostan. The fundamental tenet of one great school there, is the disbelief of the existence of matter—the phenomena of the seeming material universe they conceive to be an illusive representation, called Maja, which the Deity presents to the mind—while the opposite species of scepticism is to be found in another sect of philosophers who disbelieve the existence of mind, and reduce all the phenomena of thought to material organization. This is a remarkable coincidence between the philosophy of the Eastern and Western worlds.

END OF PART THE FIRST.

COMPENDIUM

OF

BROWN'S PHILOSOPHY

OF THE

HUMAN MIND.

PART II.

LECTURE XXV.

To Dr. Reid great praise is usually given for his supposed confutation of all scepticism concerning the existence of matter, as if he had truly established, by argument, the existence of a material world. This praise is unmerited. The sort of evidence for a system of external things, for which he contends, was felt to be precisely the same before Reid wrote as afterwards, and the very sceptic (Hume) against whom he wrote admitted its force, (if that term can be justly applied to this species of belief,) in its fullest extent.

The merits of Reid, while they have been possibly underrated by English philosophers, have been far more overrated by those of his own country, where the influence of his academic situation, the worth of his personal character, the regard for the moral and religious objects which he uniformly had in view, and the eloquence and abilities of his pupil and biographer, (Dugald Stewart) placed him in a rank among her philosophers, far higher than that to which, by his inventive genius, he was entitled.

Reid's reputation, as an original thinker, rests chiefly on his opinion upon this subject. Yet there is but one circumstance connected with the fortune of modern philosophy, stranger than Reid's claim to originality here—it is that his claim should have been so universally admitted.

This supposed confutation of the ideal system is resolvable into two parts. An attempted overthrow, of what he terms "the common theory" of ideas, or images of things in the mind, distinct from the mind itself, as the immediate objects of thought—secondly, the evidence which the simpler theory of perception may be supposed to yield of the reality of an external world. Now, this "common theory" was universally abandoned before he wrote. And although, from habit, philosophers still used the words *ideas*, or *images in the mind*, it was only metaphorically, not in the Peripatetic sense, as separate existences in the mind. The phraseology of a system often survives when its opinions are exploded; thus "the rising and setting of the sun" survive that system of astronomy which daily sent that great luminary to travel round this atom of an earth; and there is scarcely a term in popular science but has undergone such transmutations of meaning, just as a crown and sceptre pass in succession from monarch to monarch.

'Idea' is a very ambiguous term; both for which reason, and more especially with a view to this question between him and Reid, it has been avoided by Dr. Brown. Besides its exploded Peripatetic meaning, it signifies sensation, or a perception of an external object,* remembrance of it, and any variety of conception, simple or complex; but in all its modern meanings it is still *(see page* 47) the mind existing in a certain state, and nothing more—nothing distinct from the mind or separable from it.

The presence of an external object—an organic affection—an affection of the mind; such is the process in sensation. It is not necessary that the organic affection be *single*, though we speak of it as such; it is enough, that, whenever the immediate sensorial organ has begun to exist in a certain state, whether the change which produces this state be single, or second, third, &c. of a succession of changes, (see page 111,) the mind is instantly affected in a certain manner. This new mental state is sensation.

But, says Reid, the sensation is accompanied by a perception, which is very *different* from it, and the chief part of his system is founded on their difference. This difference, whether accurate or inaccurate, is laid down in some common elementary works of logic long before

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* *e. g.* The presence at the retina of rays of light is followed by a certain state of the sensorial organ, and this by a certain affection of the mind, which is more strictly termed the sensation or perception of redness; but it is also called idea of redness, when we speak more in reference to the external light than to ourselves as sentient of it.

Reid's time, and therefore to attribute its origin to him, as it has been attributed, is quite erroneous.

Sensation, says Reid, is a mere feeling of the mind, it has no *object* distinct from that act of the mind by which it is felt, its very essence consists in being felt, but Perception has always an external object, *e. g.* in smelling a rose the agreeable odour is merely a sensation; but observing that this is raised when the rose is near, and ceases when it is removed, I am led by my nature to conclude some quality in the rose which is the cause of this sensation. This quality is the object perceived, and that act of the mind, by which I have the conviction and belief of this quality, is, what I call, perception. This reference to an external object is not what Reid would have it, the result of a *peculiar* power termed perception, but of a much more *common* and general principle, (that of association or suggestion.) When the fragrance of a rose has been *frequently* accompanied with the sensations of vision that arise when the rose is before us, or with those muscular and tactual sensations that arise on handling it, the mere fragrance will, of itself, afterwards suggest these sensations, and this suggestion is all that Reid terms perception, as distinguished from the mere sensation. We ascribe the fragrance to the unseen external rose, precisely as we infer from a portrait the existence of the painter, in consequence, not of any mere power of sense, but of suggestion. *Perception is only a name given to the combination of these two principles, simple sensation and the suggestion of memory.* Such is the analysis of perception.

In taste, hearing, and vision, as in smell, Reid's *perception* is precisely of the same kind—a mere reference of association to things without whose existence another source has previously taught us. (*See page* 125.) Without the suggestions of memory, we could not, in these cases, have had any perceptions whatever to distinguish the causes of our sensations as external, more than the causes of any internal feelings. The great source of perception, then, as he understands the term, is that by which we primarily form the complex notion of extension and resistance; (*i. e.* the notion of matter,) since all other perceptions of which he speaks, in contradistinction from mere sensations, are only these complex notions suggested by the particular sensations, and combined with them in consequence of former association, and the general reference to a cause which attends all our feelings when considered as changes or new phenomena. But this complex notion of extended resistance, arises not from any peculiar power, to be termed *perception*, but as we have seen from uniting* the notion of extension, acquired by the mere remembrance of various progressive series of feelings with the notion of resistance.

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* Though the process of acquiring our *belief in the existence of external objects* has been explained at length in the foregoing lectures, it may not be amiss to repeat it in a summary way. A train of muscular feelings,—frequently repeated, till the series becomes familiar to the infant, and constitutes in his remembrance the notion of a certain progressive length—suddenly interrupted, though all the known antecedent circumstances have been the same, by a feeling of resistance which usurps the place of part of the known series;—a notion thus excited in the infant's mind

Perception, in Reid's sense, is evidently not the mere reference to a cause of some sort, for then all states of mind, hopes, fears, &c. would be perceptions, as we refer them all to some antecedent; it is a reference to a *corporeal* cause, *i. e.* a cause extended and resisting—a cause of which we could know nothing, had we merely the senses of smell, taste, hearing, vision, and touch—a cause which is usually ascribed to touch, but otherwise in Brown's theory. It is sufficient to think of a mind possessing all the other susceptibilities of sensation, but those which give us the perceptions commonly ascribed to touch, to be sensible how truly what we term *perception* in the other senses, is the mere suggestion of these perceptions of extension and resistance. Without these what perception could we have had of a material cause of the sensations of smell, taste, hearing, and vision;* and if it be to the mere suggestion of the object of another sense that we owe our "perceptions" in all these sensations, how does the reference of these to a resisting extended substance differ from any other of the common references which the principle of association enables us to make? what need, therefore, of a particular power of perception?

of a cause of interruption (the cause of this feeling of resistance,) not in himself. This muscular feeling of resistance, accompanied by its notion of a foreign cause, necessarily combining with the notion of a certain length or extension, because it uniformly supplies the place of what has been felt as a certain length.

* None, surely, for if these senses convey no notion of corporeal substances, they can convey no notion of the qualities of such substances, and therefore, no perception, in Reid's sense of the word.

'Sensation,' says Reid, 'is nothing else than it is felt to be;' this, surely, is true, of perception also, and of every state of the mind. The sensation, indeed, is different from the material object that excites it, and, surely, so he must consider the perception also, for he was too zealous an opposer of the systems which attribute every thing to matter alone, or to mind alone, to consider the perception as itself the object perceived. That in sensation, as contradistinguished from perception, there is no reference made to an external object, is true, because, when the reference is made, we then use the new term of perception; but that in sensation there is no object distinct from the act of the mind by which it is felt, is a very strange opinion, since his perception is only the reference of this very sensation to its external object. He certainly supposes the sensation to depend on the presence of an external object, and this is all that can be understood in the case of perception also, for surely, he did not consider the material object to form part of the perception, which is a state of mind alone. The *object* of perception can only mean the external cause or occasion on which this state of mind arises, and an object in this its only intelligible sense as an occasion or cause of a subsequent effect, must, on his own principles be equally allowed to sensation. As the chief part of Reid's system is founded on the confusion of this term object, as different from the external cause of an internal feeling, it would have fallen to the ground had he attempted to explain what he meant by the object of perception. That he meant something more than *the external occa-*

sion of that state of mind, appears from his argument against *Des Cartes*. That philosopher believed the immediate objects of perception to be 'certain images or traces in the brain,' but says in another place—'these traces are not perceived as if there were eyes in the brain, they are only the occasions on which by the laws of the union of soul and body, ideas are excited in the mind. It is not necessary there should be a resemblance between the traces and the things represented by them, any more than between words or signs and the things signified by them.' 'These two opinions,' says Reid, 'cannot be reconciled. If the traces in the brain are perceived, they must be the objects of perception, and not the occasions only; on the other hand, if they are only the occasions of our perceiving, they are not perceived at all.' Did Reid think that all of which we are conscious in that state of mind perception is not strictly and exclusively mental, as much as all of which we are conscious in remembrance, love, or hate—or did he think that matter itself, in any of its forms, can be a part of that mental state or feeling which we term a perception? In none of its affections can the percipient mind be said to be the mass of matter which it perceives, unless we abandon the separate existence of either matter or mind. Reid would not abandon either. He acknowledges that our perceptions are consequent on the presence of external bodies, not from any necessary connexion, but merely from the arrangement which the Deity has chosen to make of their mutual phenomena, which is surely to say, that the Deity has rendered the presence of the external object the *occasion* of the perception. Whether perception be a primary result of a peculiar power, or a mere secondary reference of association, it is in either case but a state of mind, and to be the external occasion of this state of mind, since it is to produce directly or indirectly all that constitutes perception, is surely, therefore, to be perceived.

The source of Reid's confusion (which is also the chief source of general confusion in mental science,) was, his not being in the habit of considering all the phenomena of mind—its perceptions as well as its remembrances, judgments, passions, &c.—merely as the mind itself affected in a certain manner according to certain regular laws of succession, but as something more mysterious than the subject of this sequence of feelings. To have a clear view of the phenomena of mind, as mere states of it existing successively and in a certain series which therefore we are able to predict in consequence of our knowledge of the past, is to have made a most valuable acquisition. It is to see the mind as it is in its nature divested of every thing foreign passing instantly from thought to thought in almost endless variety of states, and differing as completely from that cumbrous representation of it which most philosophers have adopted, as much as the motions of the bodies of our solar system moving freely in space, differ from the complex mechanism of the orrery.

The term perception, however, is far from being inconvenient, provided we take it for what it rightly signifies. Sensation may exist with or without *refer-*

ence to an external cause, as the sight of a painting may or may not suggest the notion of a painter; when such *reference* is made let it be called perception. Briefly then to sum up the argument—in that state of acquired knowledge (long after infancy with its elementary feelings is past,) when we can make the phenomena of the mind to be objects of reflective analysis, certain feelings (sensations) are referred by us to an external material cause. These sensations when followed by a *reference* to an external cause, are termed *perceptions*—a term which marks nothing in addition to the primary sensations except this very *reference*. But what is this *reference* on account of which the new name is given? It is the suggestion of some extended resisting object, the presence of which had before been found to be attended with that particular sensation which is now again referred to it. Had we no sense but only that of smell, or only that of taste, or of sound, or of sight, we could not have known the existence of extended resisting substances, and therefore, could not have referred sensations of these classes, any more than we do our pleasing or painful *emotions*, to such external causes. In these four classes of sensations, Reid's *perception*, the operation, as he thinks, of a peculiar mental faculty, is no such thing, but only a suggestion, no way differing from other suggestions, which arise from other co-existences or successions of feelings equally uniform or frequent. It is only in *one* class of sensations, therefore—that which Reid ascribes to touch—that perception (which he would make a peculiar faculty, extending to *all* our sensations) can be said to have any primary operation, even should we admit, with him, that our belief of extended resistance is not reducible by analysis to any more general principles. But far from admitting this, Brown shows (if his analysis of the complex notion of matter be just,) that perception, in its relation to our original sensations of *touch*, as much as in relation to the immediate feelings which we derive from smell, taste, &c. is only an operation of suggestion. However, on Reid's own principles, we see that perception, as an original principle, cannot extend to more than one class of sensations, that which he ascribes to touch, and even in this single class it is not so much, what he would call a faculty as an intuitive belief by which we are led irresistably on the existence of certain sensations to ascribe them to causes external and corporeal, or if we give the name of *faculty* to this species of intuition we should make *faculties* of all our intuitions, and thus the belief of the continued order of nature, of our own identity, &c. would be distinct faculties.

LECTURE XXVI.

BESIDE the distinction between sensation and perception, there is another distinction forming also an important part of his system which is adopted by Reid, from preceding philosophers, that of primary and secondary qualities. "Every one knows," says he, "that extension, divisibility, figure, motion, solidity, hardness, softness, and fluidity, were, by Mr. Locke, called primary qualities of body, and that sound, colour, taste, smell, heat, or cold, were called secondary qualities." The foundation of the distinction appears just to Reid, his argument for it is, that our senses give us a *direct* and a *distinct* notion of the primary qualities, and inform us what they are in themselves; but of the secondary, our senses give us only a relative and obscure notion, informing us only that they are qualities that affect us in a certain manner, but leaving us in the dark as to what these qualities are in themselves. He tells us what a relative notion of a thing is, that it is no notion of the thing at all, but only of some relation which it bears to something else. Thus gravity sometimes signifies the *tendency* of bodies towards the earth, and sometimes signifies *the cause* of that tendency. When it means the first, we have a *direct* and *distinct* notion of gravity, we see and feel it, and know perfectly what it is in itself. But in the second meaning it is *an unknown cause of a known effect;* this is a relative notion; and it must be obscure, because it gives us no conception of what the thing (viz. the cause of the tendency) is in itself, but of what relation (that of cause) it bears to something else. Every relation which a thing unknown bears to something that is known, may give a relative notion of it, and such notion we have of the secondary qualities. Thus, the fragrance of a rose is in the rose an unknown quality, or modification, that occasions the sensation, which I know well. The relation which this unknown quality bears to the sensation with which nature has connected it, is all we learn from the sense of smelling, but this is evidently a relative notion.

Thus far Reid; Brown's explanation is as follows: In these respects there is a just ground for the distinction of the primary from the secondary qualities of bodies.

First.—They are primary in the order of our definition of matter. *

Second.—They are felt to be external with more clearness and vividness than the qualities which we term secondary.

This difference of vividness is chiefly *in the nature of the sensations themselves;* † but also depends in no inconsiderable degree *on the permanence* ‡ *and universality*

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* All these primary qualities are modifications of *extension* and *resistance* (*page* 116.) the two qualities which are essential to our very notion of matter, or an external cause, and which, therefore, enter its definition. But as the notion of an external cause must be primarily formed before we can *refer* any other quality, *e.g.* fragrance, to such external cause, it is evident that with respect to such reference to an external cause, the qualities which enter the notion of it must be primary, and all those, as fragrance, which are *subsequently* referred to, must be secondary.

† Even after we have learned by experience of certain successions or co-existences of feelings to refer our sensations of fragrance, &c. to an external corporeal cause, there is nothing in the sensation of fragrance itself that might not indicate as much a cause directly spiritual, while the notion of extension and resistance combined, is that which constitutes our very notion of matter.

‡ Tastes, smells, sounds, even colors, are not always before us, but there is not a moment at which we cannot by the mere stretching of our hand, produce, at pleasure, the feeling of some thing extended and resisting. Hence the one set of causes seem peculiarly permanent, and the other set, being only occasionally present, seem fugitive.

of the objects which possess the primary qualities, the readiness with which we can renew our feelings of them at will, from the constant presence of our own bodily frame, itself extended and resisting, and of the other causes of those feelings of extension and resistance that seem to be every where surrounding us.

Brown afterwards states the just grounds for distinguishing the primary from the secondary qualities to be—

First.—They are primary in the order of definition.

Second.—They are felt by us as peculiarly permanent, independently of our feelings.

But though we thus seem to be constantly surrounded with a world of substances, capable of exciting in us the feelings (extension and resistance) which are ascribed to the primary qualities of matter, still the feeling of the primary qualities (which we regard as permanent,) is on a level with that of the secondary in these two respects, first, that it is a state or affection of the mind, and nothing more, and secondly, that whenever the secondary occurs, it, just as well as the primary, is the direct or immediate result of the presence of that external body which has the quality wherewith this feeling corresponds. If in this respect there be any difference it is that the feeling of fragrance, or any other secondary quality was originally, at least more immediately, the result of the presence of odorous particles, &c. than any feeling of extension without the mind, was the effect of the first body which we touched.

So far the primary qualities may be admitted to differ from the secondary, but the difference which Reid asserts is a mistake, founded on his false view of the nature of perception. There is nothing in the sensations corresponding with other primary or secondary qualities, which is direct in the one case, and only relative in the other. All are *relative* in Reid's sense of the term—our perception of extension or resistance, as much as that of fragrance or bitterness. Our feeling of extension is not itself matter, but a feeling excited by matter. We ascribe our sensations, as effects, to external objects that excite them, *but it is only by the medium of our sensations that these, in any case, become known to us as objects.* To say that our perception of extension is not relative to a certain external cause of this perception, as much as our perception of fragrance is relative to a certain external cause, would be to say, that our perception of extension, induced by the presence of an external cause, is not a mental phenomenon, (but something more than a state of the mind,) for if it was, *the reference of it to an external cause must be only to something which is conceived* RELATIVELY *as the cause of this feeling.*

That the connexion of the feeling of extension with a corporeal substance really existing without, depends on the *arbitrary* arrangement made by the Deity, and that all of which we are conscious might have existed as at present, though no external cause had been, Reid must admit, since he ascribes our belief of an external universe to an intuitive principle, and the admission implies, that the notion of an external universe does not directly and necessarily involve the existence of any particular indispensable cause, but is *relative only* to that particular cause whatever it may be in itself, by which the Deity has thought proper to produce the corresponding feeling of our mind. We cannot appeal to experience to determine if any sensations or perceptions are more or less direct, for strictly understood experience extends not beyond the feelings of our own mind, unless in this very relative belief itself, that there are certain external causes of our feelings, which causes it is impossible for us not to conceive as really existing, though all we know of them is, that our sensations and perceptions are made to depend on them. The causes themselves form no part of the mental series in which the mind has existed from our birth—but to determine the point in dispute with Reid, the simple answer to the question "is our notion of extension or resistance an affection or phenomenon of matter or of mind?" should be sufficient; for, if like our feeling of heat, or fragrance, it be a state of the mind, and like it, be a state produced by the presence of an external cause, then there is no reason to suppose the knowledge in one case more direct than in the other: in both, it is the effect of the presence of an external producing cause, and in both, it must be relative to that cause; what that cause is, as it exists in absolute independence of our feelings, we, who by these feelings only become acquainted with it, must, in both cases, remain equally ignorant.

LECTURE XXVII.

We are now prepared to examine the mighty achievement of Dr. Reid, which appeared to him to be the overthrow of a great system, but which we shall find to be nothing more than the proof that certain phrases are metaphorical, which were intended by their authors to be understood only as metaphors.

In the philosophy of the Peripatetics, IDEAS were considered little images in the mind, self-existing, derived from objects without, and separate and distinct from the percipient mind. After this hypothesis was abandoned, and ideas were acknowledged to be nothing more than states of mind, still the term idea (*εἴδω*, *video*) was retained, and many expressions retained with it, which, in strictness, (like the phrase, sunset, &c.) seemed to harmonize rather with the old and exploded theory. With the Peripatetics, the presence of the 'idea' *immediately preceded* the mental perception; hence, the elder metaphysicians of the new theory of perception, naturally applied the term to that part of the process (viz. *the affection of the sensorial organ*,) which *immediately preceded* the mental affection, using it sometimes in this sense, and sometimes in that sense which alone it holds among modern authors, viz. *the mental affection subsequent to the affection of the bodily organ.* Thus, the term 'idea' then, like the term 'perception'* now, was used with a two-fold signification.

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* The series in perception is—presence of an external object—affection of sensorial organ—affection of the sentient mind; but as

concerning H. U. b. 2, *ch.* 1, § 9.) And though he speaks of the *conveyance* of ideas into the mind, and of *avenues* provided for the reception of ideas, yet, as he uses the same expressions concerning sensations (§ 12) and perceptions, (§ 3) where they must be mere metaphors, surely they are so, too, in the case of ideas. Moreover, there is not a single argument in any of his works, founded on the substantial reality of our ideas as separate and distinct things in the mind. If further proof were wanting it can be found in the account of memory; (*b.* 2, *ch.* 10, § 2.) a passage purposely selected, because it is at the same time full of the particular figures that have misled Dr. Reid, and shows therefore what the true meaning of the author was at the time when he used these figures. To have confuted Locke, therefore, had it been possible for Dr. Reid, must have been a very unfortunate confutation, as it would have been also to have confuted the very opinions on the subject which he was disposed himself to maintain.

Did Hobbes believe it? No. In that part of his Elements of Philosophy, which he has entitled Physica, his opinion may be seen. He traces sensation or perception to the impulse of external objects, producing a motion along the nerves towards the brain, and a consequent reaction outwards, which he thinks (very falsely) may account for the reference to the object as external. But this error has nothing to say to the question of ideas as intermediate things, distinct from the mere perception. On this subject he is as explicit as Reid could be—'Phantasma,' as he terms the idea, 'est *sentiendi actus*, neque differt a sensione aliter quam *fieri* differt a *factum esse.* (*Elem. Phil. pars* 4, *c.* 25, § 3.)

But to proceed further back. Did Des Cartes believe it? Hé did, says Dr. Reid, who expresses great astonishment that Des Cartes, whose general opinions (inclining to scepticism) might have led him to a different conclusion, should yet have joined in the common one. The writings of Des Cartes, says Reid, ought to be consulted by those who would wish to understand his system—a piece of advice not to be neglected by those whom he addressed, since the more they studied his view of Des Cartes' opinions, the more necessary would it be for them to consult the original author.

According to Reid, the 'common theory' of ideas may be divided into two parts. First.—That images, species, or forms of external objects come from the object, and enter by the avenues of the senses into the mind. Second.—That the external object itself is not perceived, but only the species or image of it in the mind. Des Cartes and his followers rejected the first part, and refuted it by solid arguments; but the second part they never thought of calling in question. What the Peripatetics named species, he named an idea; changing the name only, but admitting the thing.

Such is Reid's account—but what is the fact? That Des Cartes' view of the process of perception was just the same as Reid's, with this only difference—an unimportant one for the present argument—that Reid, though he admits *some* organic change intervening between the presence of the external object and the affection of the mind, does not state positively what he conceives to be its nature, while the French philosopher supposes it to consist in a motion of the small fibrils of the nerves and brain. In the Principia Philosophiæ—the Dioptrics, &c. of Des Cartes—his doctrine is fully stated. He not merely rejects the Peripatetic notion of images, or shadowy films—the resemblances of external things received by the senses, contending that the mere organic affection is sufficient, and proving this by a blind man determining the dimensions of bodies, by comprehending them whithin two crossed sticks, in which the sticks cannot be supposed to transmit through themselves any images of the body—but he accounts for the prejudice common in his time (1664) of images in perception, ascribing it to the well-known effect of pictures in exciting notions of the objects pictured. 'When a sword,' says he, (*Prin. Phil. pars.* 4. § 196) 'has pierced any part, is not the feeling excited as different altogether from the mere motion of the sword, as colour, or sound, or smell, or taste, and since we are sure, in the case of the pain from the sword, that no image of the sword is necessary, ought we not to extend the same inference by analogy to all the other affections of our senses, and to believe these also to depend, not on any images, but on the mere constitution of our nature, by which certain thoughts are made to arise in consequence of certain corporeal motions.' Is not this passage decisive as to the misrepresentation, by Reid, of the opinion which he strangely considered himself as confuting?

Beside these philosophers, whom Reid misrepresented, there is another whom even he admitted to have shaken off the ideal system, and to have considered the idea and the perception to have been the same thing—a modification of the mind, and nothing more—that is Arnauld, the Jansenist, who maintains this true doctrine just as expressly as Dr. Reid, and makes it the basis of his argument against Mallebranche. In fact, except Mallebranche and Berkeley, who held very peculiar and very erroneous notions on the subject, almost every metaphysician of the last century, and many years preceding it, held just the same opinions about perception as Dr. Reid himself. Nay, what is the most decisive of all evidence with respect to the prevalence of opinions, it was even found in the popular elementary works of the period, as witness the Pneumatology of Locke's friend, Le Clerc, (sec. 1, chap. 5, sub-sec. 10,) and the Tentamen novum Metaphysicum, of De Crousaz, (sec. 37.) Precisely the same distinction of sensations and perceptions on which Reid founds so much, is to be found in the writings of this latter author.

Another practical lesson may be deduced from Dr. Reid's strange series of misconceptions—the necessity of always consulting the opinions of authors in their own works, and not in the works of those who profess to give a faithful account of them. The opinions of an author, taken thus at second hand, are often wofully misrepresented; like engraved portraits of eminent men of former days, which being but the copies of copies, retain often not a lineament correct—if you want a true likeness you must go the original picture.

LECTURE XXVIII.

Dr. Reid's claim with respect to the second part (*see page* 134) of the supposed confutation of the ideal system, we shall find equally groundless.

A confutation of scepticism concerning the existence of a material world, may be attempted in two ways. First—By showing the sceptic's arguments to be logically false. Second—By opposing to them our irresistible belief in the existence of external things. The first way is *impossible* and *needless*. The second was safer ground, but the force of this kind of evidence was as fully admitted even by Hume, as by Reid himself.

The first way is impossible,

For though such scepticism may be consistent with that belief of *ideas* which Reid opposed, yet it is quite independent of this theory of ideas, and does not fall with it, but, far from it, has still more force on the correct theory of ideas as affections or states of mind;* on which ground (*see pages* 131, 132,) the sceptic's argument is, by mere argument, quite unanswerable.

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* Of two sceptics, one believing every thing with respect to ideas, which Reid supposed himself to have confuted, the other believing ideas to be mere states of his mind; the former would be more easily overcome, since his belief would already involve the existence of *something* separate from the mind; while the other might maintain, that all of which he was conscious was the mere series of affections of his own mind, and that beyond this consciousness, (and therefore, of external objects, which themselves can be no part of that train of mental consciousness,) he could know nothing.

AND NEEDLESS,

Since notwithstanding the impossibility of confuting the sceptic by dint of logic, the belief in the existence of the external world is universal and irresistible, and equally strong as that of demonstration itself. Though all of which we are conscious are only the feelings that are the momentary states of our own minds, yet some of these it is absolutely impossible for us not to ascribe to causes that are external and independent of us. Insomuch that Mr. Hume himself admits that 'A Pyrrhonian cannot expect that his philosophy will have any constant influence on the mind, or, if it had, that its influence would be beneficial to society......all human life must perish were his principles universally to prevail.' He adds, 'so fatal an event is very little to be dreaded. Nature is always too strong for principle, and though a Pyrrhonian may throw himself or others into a momentary amazement and confusion by his profound reasonings, the first and most trivial event in life will put to flight all his doubts and scruples, and leave him the same in every point of action and speculation with all the philosophers of every other sect, or with those who never concerned themselves in any philosophical researches.' Could Reid himself be more explicit? In fact, the creed both of the sceptic and of the orthodox philosopher of Reid's school consists of the same two propositions. 1. That the existence of the external world cannot be proved by argument. 2. That the belief of it is of a force which is paramount to that of argument, and absolutely irresistible.

The *only* difference is, that in asserting the same two propositions, the sceptic pronounces the first in a loud tone of voice, and the second in a whisper; while his supposed antagonist passes rapidly over the first, and dwells on the second with a tone of confidence.

One *sense* yet remains to be noticed, that of VISION. Of this, *light* (which comprehends all the varieties of colour,) is the object, and the only object. Even in the perception of the most distant body, *the true object of vision* is not the distant body itself, but *the rays of light* which have reached the expansive termination of the optic nerve, the retina. That such is the true object of vision, appears from the consideration,* that while the light remains the same, the sensation remains the same, and that when the light is altered, even though that which we are accustomed to term the object remains the same, yet the sensation will be different.† It is the more necessary to observe the true object of vision; because in no case has the distinction between those objects of sense which act directly on our organs, and those which act through a 'medium'—a distinction which forgets that the supposed medium is itself the real object (105) produced so much confusion as in the case of vision.

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* If the light could exist in the same manner—moving in the same directions as at present—though no other bodies were in existence than the light itself and our personal organ, all the sensations belonging to mere sight would be exactly the same as now.

† The same paper which we term white when observed by the naked eye seems blue when viewed through a glass, which absorbs all but the blue rays. The reason of which diversity of perception is, that though what we are accustomed to term the *object*, viz. the paper, remains the same, whatever substance may be interposed between it and the eye, that which is really the object of vision is different, and our perceptions correspond with the diversity of their real objects.

Knowing the true object of vision, we are prepared to shew by a priori* reasoning, that the knowledge of the *distance*, *magnitude*, and real figure of objects is not, what it in our riper years seems to be, immediately received by sight. From whatever distance light may come, it is but the point of the long line which terminates at the retina of which we are sensible; and this terminating point must be the same, whether the ray has come from a few feet of distance or from many miles. The rays from the adjacent meadow not being nearer to the eye at the moment of vision, than those from the distant mountain. There is nothing therefore in the mere light itself, or in its relation to the eye at the moment of vision, which

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* That is, by reasoning from the cause to the effect, as in the present case, from the nature of light to that of the immediate information derived from vision. Thus, as lines of light from objects at different distances terminate alike at the retina, it cannot be from mere vision that we feel the difference of their distances: so also, as the axes of the extreme pencils of rays coming from a known object contain different angles when that object is placed at different distances, it cannot be from mere vision that we feel the sameness of the apparent magnitude. This is a priori reasoning, it is contra-distinguished from experience.

[illegible] [illegible] the knowledge of the dis-tance of objects—[illegible] or [illegible] magnitude: [illegible] [illegible] with [illegible] [illegible] of the same [illegible] at distances at which every thing viewed is so [illegible] [illegible], but we are [illegible] by the sense of vision [illegible] [illegible], so far as it depends on mere sensation, [illegible] [illegible] [illegible] or [illegible] part of its apparent magnitude [illegible] [illegible] of their real figure, &c. without the knowledge of longitudinal distance, we cannot distinguish a sphere or cube from a plane surface of two dimensions; and [illegible] objects appear of the same form at all distances.

That the knowledge of form, magnitude, &c. (by real magnitude of objects we mean their three dimensions, such as they are known by touch, or rather by sensations erroneously ascribed to touch, see page 117,) could not be obtained immediately from the diversities of the mere surface of light at the retina, is thus proved by a priori reasoning; yet there is one way in which it might be immediately obtained, a way which other philosophers have overlooked, viz. that knowledge might be a suggestion of some instinctive principle, by which the one feeling was connected originally and inseparably with the other.

Reasoning a priori may make it more probable that there is no such instinctive association of our original visual feelings with corresponding notions of distance, &c.; but can not shew it with certainty; for the original perception of distance, &c. implies no physical impossibility;* the question therefore becomes one of observation and experiment. *Observation* discovers no trace in the infant of any instinctive suggestion; it is long before the little nursling shews that his eye has distinguished objects from each other so as to fix their place; and *experiment*—in cases of the acquisition in mature life of sight by surgical operation, after vision had been obstructed from infancy—proves that the actual magnitude, figure and position of bodies had to be learned like a new language—that all objects seemed equally close to the eye—that Molyneux's solution of his problem (see Locke on Human Understanding, Book 2. ch. 9. § 8.) was quite correct; in short, that we have to learn to see, and that vision was what Swift defined it—*The art of seeing things that are invisible.*

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* To suggest a difference of figure, &c. there must be *some diversity* either in the *immediate* sensation of sight or of other *feelings co-existing* with it. The visual affection that is followed by the notion of a mile cannot be the same as that which suggests the notion of a foot. There must be at least an equal variety of *sensations* as of *suggestions* of this kind (distance) which they give rise to, and that the Deity should connect these two series by an instinctive principle, seems not more wonderful than that the irritation of the nostril by any stimulant odour should be immediately and involuntarily followed by the contraction of the diaphragm which produces in sneezing the violent expiration necessary for expelling the acrid odour. Another proof that such instinctive suggestion is not a physical impossibility may be deduced from *brutes* which we may believe to acquire their perceptions of figure, distance, &c. in this manner. For if a calf or lamb newly dropt into the world had to learn to see by the same tedious process as a man, it would be scarcely possible that their existence could be preserved to the period at which the acquisitions necessary for accurate perception could be made.

LECTURE XXIX.

Vision is then the application of an art of long and tedious acquirement, with which art we learn to measure forms, magnitudes, and distances with a single glance, by combining with the visual sensation the knowledge previously acquired by touch, or rather the knowledge falsely attributed to touch. (See page 116.) How is this combination formed, and first *how is it that we perceive the distance of objects?*

Not by the measurement of the different angles subtended by objects at different distances, nor by that of the different degrees of inclination of the axes of the eyes necessary for distinct vision in particular cases; for this would be to suppose that all men, even infants and idiots, were continually engaged in measuring angles; and a test that decides the question—the existence of those angles, or of the lines of which they are the inclinations, are utterly unknown to most people, who yet are able to distinguish the distances of objects as accurately as expert mathematicians.

How then do we perceive the distance of objects? *The great principle is that of association* by which the notions (erroneously) ascribed to touch (see page 116) are suggested immediately by the visual feelings which co-existed with the sensations of touch, as the words of a language fully learned suggest whatever these words denote. A child whose eye has learned to distinguish objects hears the word *cup* pronounced frequently when a cup is held before him, the word afterwards suggests the thing. In previously learning to distinguish the cup by the eye, the child went through a similar process: the visual feeling which the rays of light from the cup excited, co-existed with the tactual and muscular feelings when he handled the cup, and the one feeling thus became associated for ever after with the other.

The feelings which are the elements of our visual judgments, that is, by means of which we judge of the distance of objects, are three :—

I.—The different affections of the optic nerve.

II.—The muscular feelings.

III.—The previous knowledge of the distance of other objects which, form with that which we are considering, a part of one compound perception.

I. The different affections of the optic nerve or retina become signs of distance in two ways—1st, By the extent of the part of the retina affected; 2d, By the more or less vivid affection of the part.

1. From the laws of optics it appears, that by lessening the distance of the object from the eye, the light from that object will fall over a greater extent of the retina; and this change of extent, though, as we shall show hereafter, the figure of the enlightened part is not perceived, must produce a change of sensation (just as the sensation of heat differs according to the extent of the surface which has grown warmer or colder); and this change of sensation being found

constant and uniform on a given change of distance, becomes of itself by association significant of the distance.

2. From a distant object less light falls on the eye, and the outline is less definite; hence the vividness of the affection becomes a new measure of the distance. Thus the painter by different shades of colour makes one part of a plane surface appear more remote than another. The indistinct outline of the small figures in the back ground of his picture marks the difference between that which is intended for a small and that which is intended for a distant object.

Hence we can explain why our perception of distance and magnitude of objects becomes less accurate when the state of the air, the medium through which the light is transmitted from them, is much altered. In a fog, a crow close at hand may be mistaken for a man at a distance; because the effect produced on the retina, in the extent of the visible figure and its dimness and indefinite outline, is the same as, in the common state of the atmosphere, the larger object when more remote would occasion; so also objects seen under a brighter sky and purer air (e. g. by travellers in Italy) seem nearer than they really are, not to natives indeed, but to strangers, whose notions of distance have been acquired in a less happy climate.

II. In the contraction of those muscles which adapt the nice refracting apparatus in each eye to the degree of refraction necessary for distinct vision in the particular case, and which produce that inclination of the axes of vision to each other which is necessary for directing both eyes equally on the object, some change of MUSCULAR FEELING must be produced, which, though slight perhaps, is yet sufficient to modify, in some degree, the whole compound sensation. As there are various muscles subservient to the motions of the eyes, some of which may be exerted while others are quiescent, the feeling must vary not merely with the degree of contraction, but also with the muscles contracted. A certain muscular feeling accompanies the visual sensation, and it is with this compound feeling, muscular and visual, that the notion of distance is associated.

But if it be objected, how can muscular adaptation impart the knowledge of distance of an object, since we must first know its distance before we can adapt our eyes to the state necessary for its distinct vision, we may answer, that the necessary adaptation, if it be not the result of a rapid change of various degrees of contraction in each particular case, may depend not on our knowledge and will, but on an instinctive connexion of certain motions with certain feelings, of which motions we are equally unconscious as we are of the change in the diameter of the pupil of the eye, according to the quantity of light poured on it.

III. That we judge much more easily of the distance of moving objects in scenes with which we have some acquaintance than in a part of the country which is quite new to us, is a common remark. A variety also of interposed objects, even though we should not be acquainted with the exact distance and position of each, aids our calculations. On the other hand, let a river intervene, suppose not broad enough to hinder our distinguishing objects at the other side, it is very difficult to guess any way nearly at their distance. Therefore the previous knowledge of the distance of other objects forming with that whose distance is sought one compound perception is another element in the calculation of distance.*

If all men, it has been remarked, had uniformly spoken the same language in all parts of the world, it would be difficult for us not to think that there was a natural connexion between our ideas and the words which denote them: a similar illusion takes place in the universal language (as we may call it) of vision, the same sensations of sight (the words of this language) being to all significant of magnitude and distance.

It has appeared mysterious to many, that objects are seen erect, though the picture on the retina is inverted, and that they are not seen double as being pictured on the retina of each eye. But there is nothing mysterious in it, if we consider how much of the visual perception is referable to association. If the light reflected from a single object *touched* by us had produced two thousand separate images in our eyes, erect or inverted, the visual feelings thus excited always accompanying the touch of a *single* object, would have suggested but a single object. To this supposed anomaly, in the language of vision there is an analogous case where the same notion is excited by two words in one language which is expressed by one in another; thus, *vicit* and *he conquered.*

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* Having shewn how the knowledge of *distance* is combined with our visual sensations, it is needless to go through *figure* and *magnitude*. And in fact they are involved in *distance*, since the distance of an object being merely the extension of the long line between the object and our eye is the magnitude of the intervening objects and that which we consider, regarded as one great whole, of which great whole the distant object is nothing more than the boundary,

Since Berkeley's discoveries, scarcely any philosopher has denied that the knowledge of the distance, magnitude, and real figure of bodies is thus acquired by association. But they have all, on the other hand, assumed gratuitously, that in the perception of objects by sight, there are two modifications of extension,* a visible and a tangible figure, the VISIBLE FIGURE of objects (a figure of two dimensions, length and breadth, immediately and originally known to us by sight) *corresponding with the picture on the retina*,† and changing therefore with the change of position relatively to the eye, the TANGIBLE FIGURE, permanent and independent of their change of place; and that the latter is the real figure *suggested* by the former, just as the conception of objects is suggested by the arbitrary sounds of a language. Brown considers that the only immediate object of vision is colour, and denies that there is any such visible figure. The only reasons he can conceive for the belief in it are—1st, The impossibility in our present sensations of sight of separating colour from extension; and 2d, That there is, in fact, a certain length and breadth of the retina, on which the light reflected from an object falls. As to the first,—

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* Though colour and extension are *now* inseparable, this is no proof that they might not have been originally separable; if it were a proof, it would go further; for it is impossible to separate the colour of objects from the perception of their three dimensions, that is, of the tangible figures which it is admitted are not immediately seen.

† So that when we look upon a thousand feet of meadow, what we *immediately* see is on this hypothesis of theirs, the *square inch* of greenness in the image on the retina, and this square inch suggests their tangible figure.

The species of extension, which it is impossible to separate from colour, is not the length and breadth of the *visible* figure,* but the length and breadth of the *tangible* figure,—a magnitude depending not on the diameter of the retina or the part of it that is affected, but on the magnitude and distance of the external object.

In looking at an oak tree, the impossibility of separating colour from length and breadth is not greater than the impossibility of separating it from the convexity. We might then as well conclude that the perception of the convexity is immediate and original. It is only because in all the varieties of extension, whether convex, concave, or plain, two dimensions are constantly implied, that the association of colour with these is indissoluble. Had every surface in nature been convex, it would have been as difficult to separate colour from convexity, as it now is to separate it from mere length and breadth.

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* Of the existence of this visible figure, it is admitted we have no consciousness.

2. As to the second supposed argument, the fact is undeniable, that there is a certain figure of the part of the retina on which the light falls; but the question is not whether such a figure exist, but whether the perception of such visible figure necessarily form a part of the sensation. Of this the existence of such figure is no proof; for in the other organs, as well as that of sight, the nervous matter affected is of a certain shape, yet we are never said, e. g. to smell the length and breadth of an odour. The only reason why the nervous particles acted upon by light should be thought figured rather than those acted upon by odour, is this, that the light which acts upon one person's organ of vision may be made visible to another person (since, by dissecting the eye, the image of the luminous body may be shown distinctly painted on the retina), but we cannot so exhibit the particles of odour. But as it is not in the dissected eye that vision takes place, and as the living eye and nostril are alike affected in one physical point, and therefore there is an olfactory figure as well as a visible figure, it follows that there is no reason to suppose the perception of extension necessarily to accompany the one sensation more than the other.

In addition to these negative arguments, there is a positive argument, namely, that the supposed necessary perception of visible figure implies the *blending of things which can not be blended,* If the mere visual sensation of colour imply in itself no figure, we can conceive it to be blended with any figure, but not so if it imply in itself a fixed, definite figure, so essential to the very sensation of the colour, that without it the colour could not for a single moment be perceived. You look on a sphere, you perceive its colour, which colour, according to the general theory, is inseparable from the notion of its visible figure—a *small plane* figure of *two dimensions*, but the sight of the sphere suggests its tangible figure also as a *large convex* object of *three dimensions*; therefore to our perception the object is at once *small* and *large*, *plane* and *convex*, of *two* and of *three dimensions*. Is not this a blending of things which can not be blended?

LECTURE XXX.

HISTORY OF OPINIONS REGARDING PERCEPTION.

Before we quit the subject of perception, to which its primary interest as the origin of our knowledge has led Brown to pay 'perhaps a disproportionate attention;' it will be necessary to notice (erroneous though they are) the hypothetical opinions concerning it of some otherwise eminent philosophers.

Two supposed difficulties concerning perception, considered as a *mental effect* of a material cause, have embarrassed philosophers, and given rise to all those wild hypotheses. 1. The production of this effect by *remote* objects, as in the perception of the sun and stars. 2. The production of it by *matter*, a substance which has no common property that renders it capable of being linked with the mind in the manner which was supposed to be necessary for causation.

Since the latter of these supposed difficulties arose from a wrong view of causation, mind and matter by their very nature seeming unsusceptible of that common bondage of mysterious links (p. 32) which in the series of cause and effect were supposed to connect every observed antecedent with its observed consequent, this difficulty must vanish when the necessity of connecting links in causation is shewn, as has been done (32) to be falsely assumed. According to our theory of causation, there is in perception the following sequence, viz. presence of external object—change of state of bodily organs—change of state of mind; and in this sequence there is nothing more mysterious than there is in sequences where mind acts on mind or matter on matter: e.g. where the presence of one material object is followed by the gravitation of another such object towards it. He who created *matter* created *mind* also, and his will can connect the successive changes of state of the one with those of the other, as well as connect the changes of each by itself.

As to the former difficulty—arising from the remoteness of the object perceived—it is founded on a principle which, were it not, as it is, false, would yet be inapplicable; the false principle is, that a change cannot take place in any substance in consequence of the change of position of a *remote* object; a principle difficulties mentioned above. They denied that any direct causation whatever took place between our mind and bodily organs; hence arose the system of occasional causes—a system which supposed that there is no direct agency of our mind on matter or of matter on our mind—that we are as little capable of moving our own limbs by volition as of moving by our volition the limbs of any other person—as little capable of perceiving the rays of light that have entered our own eyes as the rays that have fallen on any other eyes—that our perception or voluntary movement is therefore to be referred in every case to the immediate agency of the Deity—the presence of rays of light within our eye being the mere occasion on which the Deity himself affects our mind with vision, as likewise our desire of moving our limbs is the mere occasion on which the Deity himself puts our limbs in motion.

It is true, that all the changes which take place in mind or in matter are *ultimately* resolvable into the will of the Deity, and whatever powers material objects may have of producing sensations in us are derived solely from his will. But to deny (as the Cartesians do), that they possess such derived powers, is to say that they were created for no purpose, or for no other purpose, except to put the Deity in mind when it was time for him to produce in us this or that sensation, as if he required any such memorial! Yet this is the only conceivable use of matter, if it has no power of affecting us; and, if so, it has no existence with respect to us; so that the system of occasional causes is only a more awkward and complicated modification of Berkeley's system.

The defenders of occasional causes imagine that they present in a more sublime light the divine omnipotence by representing it as the only power in nature. But they might as well assert, that the creation of the infinity of worlds, with all the life and happiness that are diffused over them, render less instead of more sublime the existence of him who till then was the sole existence; for power that is derived derogates as little from the primary power as derived existence derogates from the fountain from whence it flows. Instead of exalting, they impair the sublimity of our conception of the Deity by supposing him, who makes nothing in vain, to have created an idle mass of matter that cannot affect us or be known to us or any other created being more, than if it were not. Nor does this theory remove any of the difficulty of mind acting upon matter, since the Deity is a spiritual being, and his power, omnipotent though it be, is only an instance of action of this kind, and not conceivable by us in any other light than as a mere antecedence of change. To state it with a view of obviating any difficulty that may be supposed to be involved in the mutual influence of mind and matter, is an absurdity like the sophist's who should pretend to disbelieve that the heavy pinions of birds could sustain them in the air, and who should bring forward the soaring of the eagle in support of his doctrine.

It is only in name that the system of occasional causes has become obsolete, it has still continued to receive the assent of philosophers who rejected it under its ancient name. It is the spirit of this system alone which gives any sense whatever to the distinction which is universally made of *causes* as *physical* and *efficient*; a distinction which implies that beside the antecedents and consequents in a series of changes which are supposed to have no mutual influence, and might therefore be antecedent and consequent in any other order, there is some intervening agency which is in every event of the series the true efficient; that, in short, matter does not act on mind nor mind on matter. The 'physical cause' in this nomenclature exists for no purpose, as it is absolutely inefficient to produce any change whatever; it is therefore neither more nor less than the old 'occasional cause.' And all which was cumbrous and superfluous in the one system, is equally cumbrous and superfluous in the other.

We next come to the system of *Malebranche*, who being one of the principal assertors of the doctrine of occasional causes, had besides some peculiar views of the nature of perception. His hypothesis is, that we perceive not objects themselves, but the ideas of them which are in God.

His supposed demonstration of this paradox begins with a negative proof, an attempt to shew the inadequacy of every other mode of accounting for our perception of the ideas of things. Ideas he regards as distinct from perception itself, not the mind affected in a certain manner, but something separate and independent of the mind.

He then proceeds to his positive proof, asserting in the first place, that it is "absolutely necessary that God should have in himself the ideas of all the beings which he has created, since otherwise he could not have produced them;" and in the second place that God is united to our souls by his presence, "so that he may be said to have that relation of place to the mind which space has to body." (Recherche de la Veritè, lib. iii. ch. 6.) Wherever the human mind is, there God is, and all the ideas which are in God; thus we have an ever present fund of ideas, requiring for our perception of them only that divine will, without which no change can take place.

That it is by this *one* stock of ideas eternally present in the divine mind with which every other mind is united, rather than by the creation of an infinite number of ideas in each separate mind that perception takes place, he conceives to be proved by various reasons—by the greater simplicity of this mode—its consistency with the scriptural account of our state of dependence.—By various notions, e. g. *infinity*, *genera*, *species*, &c. the universality of which he conceived to be inconsistent with the absolute unity and limitation of every idea that does not derive a sort of infinity from the mind in which it exists—and by other reasons, very mystical and feeble, in which, though it may not be difficult to discover what their author meant, it is very difficult to conceive how a mind so acute as his could have been influenced by them.

Notwithstanding his veneration for Des Cartes, Malebranche has not adopted that philosopher's enlightened view of ideas, but considered them as existences distinct from the sentient mind, which must have been present in the mind of the Deity previous to creation—the archetypes or exemplars of all that was to be created—since he formed the universe not casually. This opinion as to the eternal forms subsisting in the divine mind is Plato's theory of ideas. But it is in the writings of St. Augustine, who had himself imbibed a considerable portion of the Platonic philosophy that the true source of Malebranche's hypothesis is to be found. According to St. Augustine, there is a supreme, eternal, universal truth which is intimately present to every mind, and in which all minds alike perceive the truths which all are alike necessitated to believe, e. g. the truths of arithmetic and geometry, and the primary essential truths of morality. These truths we feel to be eternal, because we feel that they are not contingent on the existence of those who perceive them, but were, and are, and must for ever be the same. And we feel also that the truth is one, whatever be the number of individuals that perceive it, and is not converted into many truths by the multitude of believers. 'If,' says he, 'we both perceive that to be true which you say, and both perceive that to be true which I say—where do we see it? I certainly see it not in you nor you in me, but both in that immutable truth which is over our minds.'

From this to the system of Malebranche is but one step. If we suppose, with Augustine, that there is one eternal Truth which contains all truths, and is present to all minds that perceive in it the truths which it contains, we must be ready to believe with Malebranche, that our ideas of all things are contained and perceived in one omnipresent mind to which all other minds are united, and which is itself the eternal truth that is present to all.

LECTURE XXXI.

The celebrated hypothesis of Leibnitz, the doctrine of the pre-established harmony, originated in the same false view of the necessity of some connecting link in causation, and was intended therefore, like the others, to obviate the supposed difficulty of the action of matter on mind and of mind on matter.

According to this doctrine, body and mind never act on each other, having as little influence on each other as they have on any other mind and body. The mind feels pain when the body is bruised, but, from the pre-established order of its own affections, it would have felt the same pain, though the body at the moment had been resting upon roses. The exact correspondence of the motions and feelings which we observe, arises merely from the exactness of the choice of the Deity in uniting with a body that was formed by him to have of itself, a certain order of independent motions, a mind that was formed to have of itself also a certain order of independent, but corresponding feelings. In the unerring exactness of the choice, and mutual adaptation consists the exquisiteness of the harmony. But however exquisite, it is still a harmony only, without the slightest reciprocal action.

The mind, and its organic frame, are in this system like two time-pieces which have no connexion with each other, however exactly they agree, and of which each would indicate the hour in the very same manner though the other were destroyed. Thus the soul of Leibnitz himself, for example, would, though his body had been annihilated at birth, have felt and acted as if with its bodily appendage, studying the same works, inventing the same systems, and carrying on with the same warfare of books and epistles, the same long course of indefatigable controversy; and his body, though the soul had been annihilated at birth, would have achieved the same intellectual glory without any consciousness of the works which it was writing and correcting.

The doctrine of Leibnitz, like that of occasional causes, supposes a system of external things, of which, by the very principle of the hypothesis, *there can be no evidence and no utility*. If the mind would have exactly the same feelings as now—the same pains, and pleasures, and perceptions, &c.—though every thing external, comprehending, of course, the very organs of sense, had been annihilated ages of ages before itself existed, what reason can there be to suppose that this useless system of bodily organs and other external things exists at present? The universal irresistible belief of mankind, to which philosophers of a different school might appeal, cannot be urged in this case, since the admission of it as legitimate evidence would upset the whole system; for example, our belief that light exists is not stronger than our belief that it *affects* us with vision, and that if there had been no light, there would have been no sensation of colour. To assert the pre-established harmony is almost to affirm and deny the same proposition. It is to affirm that matter exists, and then to affirm that its existence is useless, that it cannot be perceived by us, and that we are therefore absolutely incapable of knowing whether it exists or not.

We have now finished the consideration of our external affections as they exist *simply*, but they do not always exist simply, and when they occur in combination with other feelings, they sometimes assume appearances so different, as to lead to the erroneous belief, that the complex feeling is the result of a distinct power of the mind. Such is the case with regard to *attention*, which we will examine, after having premised some observations on the co-existence of sensations.

Innumerable objects are constantly acting together upon our organs of sense; we see not alone one point of vision, but an entire landscape, besides being engaged in hearing and feeling at the same moment of time; thus *various sensations constantly co-exist so as to produce one complex affection.*[*] When they do co-exist, they are individually *less intense*; e.g. A sound which is scarcely audible in the tumult of the day may affect us powerfully if it recur in the calm of night, because it is no longer mingled with other sounds and sensations, which by co-existing with it rendered it weaker. They are also individually *less distinct*; e.g. When a few voices sing together, we easily recognize each separate voice, not so in a full chorus, much less in a multitude of voices.

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[*] This does not contradict what was said in page 47, on the *sim-*

In addition to being *weaker* and less *distinct* when many sensations of equal intensity co-exist, it may be regarded as another general law of mind, that the effect of the increased intensity of one of them is a diminished intensity of those which co-exist with it; thus if, on a starry night, some one fixed star were to become as radiant as our sun, the light emitted from each of the other stars would become imperceptible.

Such an increase of vividness, it is the nature of our EMOTIONS to communicate to all our mental affections. Every one's experience shows, when many objects are before our view, some one of which excites a strong *emotion*, that immediately every other object, if seen at all, is seen but slightly, but that object becomes peculiarly vivid. The eye has, as it were, a double quickness to perceive what we love or hate, hope or fear; and it is the same with our other senses.

plicity and *indivisibility* of the affections of the mind. For an explanation of the sense in which each really simple state of mind in each successive moment, may yet be considered complex, see page 48.

The effect of emotions being so evident when combined even with sensations—a class of phenomena which are very vivid in themselves—becomes still more remarkable when co-existing with less vivid affections of mind; as in the case of mere memory or imagination, the mere remembrance or conception of some exciting object becomes so vivid as to render even our *perceptions* comparatively faint. Thus the absence of mind of lovers is proverbial. And thus objects seen in twilight, or in the mist of a lone hillside, take bright colours from the fears of superstition. Of this vivid effect of *emotions* we have a striking instance in the *second sight* of the Highland seers. Superstition and the melancholy character of the natives, brightening their gloomy conceptions into a temporary reality.

In describing the effects of emotions, we have been forced to anticipate what ought to be kept until we came to that part of our leading division which treats of emotions, but the anticipation was necessary in order to explain the nature of attention, a state of mind which has been wrongly thought to imply the exercise of a peculiar mental power, but which, in the case of objects of sense, appears to be really nothing more than *the co-existence of desire with the perception of the object to which we are said to attend*; as our inattention to other phenomena of the mind, it is, in like manner, the co-existence of a particular desire with these particular phenomena.

Suppose a person to look for the first time upon a landscape, he sees the whole of it at once, one complex feeling very comprehensive but very indistinct; he wishes to view it more accurately, and in consequence of the wish, though the objects themselves continue as before, he no longer seems to view them all, but only one or a few, and the few which he now sees, he sees more distinctly; whence is it that though the field of the eye still comprehends a wide expanse, yet that all the light streaming from the greater part of it should scarcely affect him, while the light from one or two other parts, though not more brilliant, produces in him distinct perception?

Condillac attributes it to a faculty which we have of directing the eye on *one* object, a faculty which he says is the result of our organization, and which is common to all mankind. He is wrong, however; for, taking his words in their strict sense, we have no such faculty, we cannot direct our *eyes* so as not to comprehend in our field of vision many objects besides that single one which is supposed to fix our attention; and if by the direction of our *eyes*, he meant the exclusive or limited perception by the *mind* itself, the difficulty remains—how it happens that while light from innumerable objects falls upon the retina as before, it no longer produces any distinct vision relatively to the objects from which it comes—while light, probably not more brilliant from other objects, produces vision much more distinct than at first.

Our consciousness attests that no new faculty is exercised between the indistinct perception of the wide scene, and the distinct perception of the parts of the scene. We have merely the general desire of knowing the scene, then follows the perception of some prominent object in it—then the *desire* of knowing this particularly—and the contraction of a few muscles in obedience to our volition, so as to fix the eyes and body as steadily as we can, to prevent the eye from being distracted by new objects.

These are all the intervening steps of which we are conscious till almost instantaneously the landscape becomes to our vision altogether different; the part we wished to know particularly is seen, the remaining parts seem almost to have vanished. No new feeling indicating a peculiar faculty precedes the change. Nothing but the mere *desire*, in combination perhaps with expectation of that more distinct vision which follows. Can we account for the change?

We can—the *emotion* of desire renders the perception of the particular object more vivid, and the greater vividness of this one sensation renders all accompanying sensations indistinct.

Attention, then, is not a simple mental state, but a process or combination of feelings. It is not the result of a peculiar power of the mind, but *of that law of our emotions* by which they communicate greater intensity to every feeling with which they co-exist and harmonize, and of those *laws of our perception* by which, when sensations co-exist, and one of them receives an increase of vividness, the others suffer a corresponding faintness.

LECTURE XXXII.

We have now concluded our observations on the very important primary class of external affections of the mind, and we next proceed to consider the secondary class of its INTERNAL AFFECTIONS (89). Innumerable as our *perceptions* are, yet they form but a small part of the varied consciousness of a day; by far the greater number of our feelings are those which arise from our internal successions of thought. By this capacity of internal change of state it is, that the soul is truly immortal, since, were it capable of no affections but external—those which had the presence of an external object to excite them, it would be virtually as mortal as the mortal things around it, since but for them, in circumstances of such complete dependence, it could not have any feelings whatever, and could therefore exist only in that state of original insensibility which preceded the first sensation that gave it consciousness of existence.

How wide a field the internal affections of the mind present without dependence on the system of material things, is proved by the increased energy of thought which we often seem to acquire in those hours of the quiet of the night, when every external influence is nearly excluded; when the soul, as has been poetically said by Heinsius, retires into the sanctuary of its own immense abode, as if invited to recline at the feast of the gods.

The species of philosophical inquiry which our *internal affections* of mind admit, is exactly the same as that which our external affections admit, viz. we consider the circumstances in which they arise, and the circumstances which follow them, with the relations which they appear to us mutually to bear to our external feelings, and to each other, and nothing more. We cannot, independently of experience, discover *a priori* why one state of mind should be followed by another certain state of mind, any more than we can discover why the presence of light should be followed by the sensation of colour rather than by that of odour or sound.

In the classification of our internal affections, as in every other classification, we may err in two ways—by excess, or by deficiency. We may multiply useless divisions, or we may vainly labour to force into one division, individual diversities which no labour can make to correspond. The progress of classification has not been a regular advance of simplification,—millions of individual objects first reduced to a few thousand species, and these again to a few hundred classes, and so on—far from it. The first step, to be sure, must uniformly be to reduce the great multitude of obvious diversities to some less extensive tribes. But the mere guess-work of hypothesis soon comes in to supply the place of laborious observation and experiment, and of slow and accurate reasonings upon them. The sweeping power of an hypothesis in a moment ranges, as by magic, under one general name, myriads of diversities the most obstinately discordant. The hypothesis is discovered to be false, the magic is dissolved, and the ill-united host scatters again into a number of lesser tribes. But even where, without such guess-work, divisions and arrangements have been formed on the justest principles, according to the qualities of objects known at the time, some new observation or new experiment is continually shewing unsuspected resemblances among objects which a former age considered of different classes, or, yet more frequently, unsuspected differences among objects previously classed together. Thus there is a sort of ebb and flow of wider and narrower classification. The History of Chemistry affords a striking example of this alternation. Thales was for the *formation* of every thing out of a single principle—water. So Anaximenes from air, Heraclitus from fire. The Peripatetics then allowed four elements; this was the doctrine of the schools; the Alchemists had one; others three; and modern chemists, by superior researches, have shewn that what were previously regarded as elements are themselves compounds of elements, above forty in number, previously undiscovered.

The History of that *intellectual chemistry*, the analytic science of mind, exhibits the same alternate widening and narrowing of classification. In our own island, after the decay of Scholastic metaphysics, during the long and brilliant period from Hobbes to Hume—men who, notwithstanding their unfortunate errors in religion, threw much light on the science of mind—a period including, among many other eminent names, that of Locke—there was a tendency to simplify the classification, and more regard was paid to the similarities of phenomena than to their differences. The philosophy of Reid and the Scotch metaphysicians had the opposite tendency, enlarging the number of classes far beyond what was necessary, yea, even beyond all the subtle divisions of the schoolmen themselves.

But the difference is still more remarkable if we go, not from age to age, but from country to country. While the Scotch were busy multiplying the powers of the mind, the French philosophers had reduced all its phenomena to *one* class—all are sensations or *transformed sensations*—a doctrine which, whether true or false, is simple enough in all conscience. It is indeed a system which, if once admitted, is very difficult to be shaken off, being very simple, very wonderful, and obviously true in part. De Gerando aptly describes it as an *intellectual alchemy*; an effort to discover the grand secret by which the pure gold of truth may be produced at pleasure.

LECTURE XXXIII.

The doctrine of transformed sensations took its rise from Condillac, who, however does not claim the honor of being its author, but very strangely pronounces it to be the doctrine of Locke, in which, what is still stranger, all the French metaphysicians agree with him. To the doctrine of Locke nothing could be more opposite. In fact, they have only one point of agreement, and that a negative one, in which all philosophers of the present day may be considered unanimous, namely, the denial of what were termed innate ideas.

According to the French philosophers, sensation is not merely that primary affection of the mind which *gives occasion* to our other feelings, but *is* itself (as variously composed or decomposed) all the variety of our feelings. 'If we consider,' says Condillac, 'that to remember, to compare, to judge, to distinguish, to imagine, to be astonished, to have abstract ideas, to have ideas of number and duration, to know truths, whether general or particular, are but so many modes *of being attentive*, that to have passions, to love, to hate, to hope, to fear, to will, are but so many different modes of *desire*, and that attention in the one case and desire in the other case, of which all these feelings are modes, are themselves in their origin nothing more than *modes of sensation*, we cannot but conclude that sensation *involves* in itself—'enveloppe'—all the faculties of the soul.' (Traitè des Sensations, Part I. chap. vii. § 2.)

How different from Locke! who sets out with a primary division of our ideas into *two* distinct classes, one alone of which belongs to sensation, and who does not consider the *operations* of the mind, even those employed about sensations to be themselves sensations, or modes of sensation or involved in sensations.

We have seen that the doctrine of transformed sensations is not Locke's; now let us see if it is *truth*.

To pass from *faculty* to *faculty* and from *emotion* to *emotion*, and to protest that he finds a family likeness in them all without exhibiting to others the least resemblance of what he seeks, and yet repeating the constant affirmation that he finds sensation every where, is surely no proof, and yet, except the mere repetition that he has found it, there is not in the works of Condillac the slightest evidence on the subject. He proves, indeed, that the various feelings of the mind agree, as one might well suppose they would, in being *feelings of the mind*, but not that they agree in being *sensations*.

When Condillac has shown the circumstance from which any effect results, he thinks he has shewn the *result*, and the circumstance which produced it, to be essentially the *same*. This is his great error.

Certain sensations have ceased to exist—certain other feelings have immediately arisen—these new feelings are therefore the others under another shape. Such is the secret false logic which seems to pervade his whole doctrine on the subject. The origin of his false reasoning appears to be the analogy of *matter*, to which his system, by reducing all the affections of the mind to sensations,—a class immediately connected with external things,—led him to pay peculiar attention. Compound e. g. alkaline and silicious matter, and glass results; a substance dissimilar from either of its elements, yet, in such *compositions of*

object or a previous sensation. For, as we give different names to the same motion of the same piece of iron, according as it is differently produced; at one time calling it magnetism; at another time, impulse, &c.; so we should still have to speak of external and internal mental susceptibilities of affection, though both were but one and the same class of sensations, varied or transformed by some strange internal process, undescribed and indescribable.

LECTURE XXXIV.

The whole order of INTELLECTUAL STATES OF MIND, as being composed of the feelings which arise immediately in consequence of certain former feelings of the mind, may be technically termed, in reference to those feelings which have induced them, *suggestions*. They may be all referred to two generic susceptibilities—that of *Simple Suggestion* and that of *Relative Suggestion*. And the names of these mental powers being also given to each simple act or exercise of these powers, we may class all our intellectual states under those two heads,—simple suggestions, or conceptions; and relative suggestions, or relations.

I look at an object; it *suggests* to my mind another object, one perhaps not seen for years, and in a far country. If now the consideration of the object suggested alone occupy my mind, it is a simple suggestion; but if my state of mind be such that, though simple as all our states of mind, yet on mental analysis it will be found to involve not alone the consideration of the *suggested* object, but also that of the object just now *perceived*, and some comparison between the two—this is a state of *relative suggestion*;* the one set of feelings, mere images of the past, arising image after image in regular sequence, without any feeling of relation necessarily involved—the other set necessarily involving the perception of *relation*.

Simple suggestion, then, is the capacity of the mind, by which feelings formerly existing are revived in consequence of the mere existence of other feelings; thus the sound of a friend's name suggests the conception of the friend himself.

This conception of our friend, following the perception of the sound, involves no feeling of any *common property* with that sound, but is precisely the same conception of our friend, which *might have been sug-*

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* This term is preferable to the more familiar term *comparison*, which nearly signifies the same thing; in this respect, that comparison implies a *voluntary seeking* of some similitude or other relation between two objects, while the term *relative suggestion* comprehends the cases of voluntarily sought comparison, and also the equally numerous cases where we perceive the relation without any previous intention of comparing them, or any search for a likeness The term *judgment*, in its strict philosophical sense, as the mere perception of relation, is synonimous with Relative Suggestion; but its vulgar use, in many vague significations, has thrown a degree of indistinctness over even the philosophic use of it; for this reason, and because *judgment* is generally applied to but a part of relative suggestions, being held as distinct from reasoning, Brown is cautious in his use of that term.

gested by some other previous circumstance, e. g. by the chair on which he sat.

Relative suggestion is the capacity of feeling relation, when two or more external objects or feelings of the mind itself are considered.

Thus, suppose I have the perception or conception of a horse and a sheep, or perception of one and conception of the other, and that this state of mind is followed or accompanied by the feeling of some agreement, disagreement, or other relation between them. This feeling of resemblance, &c. between the horse and sheep is a state of relative suggestion, and *could not have been suggested* by any other previous state of mind, but that of the perception or conception &c. of the objects compared.

With these two capacities of suggested feelings, simple and relative, which are all that truly belong to the class of intellectual states of mind, various emotions may concur, particularly that most general of all emotions—desire in some one of its various forms; and the concurrence and non-concurrence of emotion may give to the same intellectual state different appearances, and so deceive those, who do not make the necessary analysis, into the belief in the existence of different powers, imagination, recollection, &c.; which various powers a more accurate analysis would, as we will hereafter show, have proved to be merely modes of suggestion, diversified by combination with emotions.

Simple Suggestion.

The phenomena of simple suggestion are usually classed under the general term of the *association of ideas*, a term employed to denote that tendency of the mind, by which, feelings that were formerly excited by an external cause, arise afterwards in regular successions to each other as it were spontaneously, or at least without the immediate presence of any known external cause. The name association should not have been confined to ideas; for the influence of the associating principle is not confined to ideas, but extends to all our mental affections; thus our joys, sorrows, &c. can be revived in some degree, through its influence, by blending with the ideas or other feelings that awakened them. Ideas or conceptions, indeed, present the most striking examples of the principle; still the limitation of the term to ideas, as implied in the phrase association *of ideas*, is improper, and tends to obscure the subject, or at least to deprive us of the aid that we might have received from it, in the analysis of many of the most complex phenomena.

Without the suggesting principle, our existence, if it could have been continued at all, would have been a state of utter wretchedness and imbecility, incapable even of as much reasoning as gleams through the dreadful stupor of the maniac. It is this principle, the reviver of thoughts and feelings which have passed away, that gives value to all our other powers and susceptibilities, intellectual and moral, by rousing them into action, and furnishing them with materials

We love and hate, desire and fear, use means for obtaining good and avoiding evil, because we *remember* the objects and occurrences which we have formerly observed, and because the future, in the similarity of the successions which it presents, appears to us only a prolongation of the past.

The advantages which we derive from the principle of suggestion consist not in its *mere revival* of thoughts and feelings, of which, at some former time, we had been conscious; but in its revival of these in a *certain order*, according to certain general laws or tendencies of succession, which regulate our trains of thought. If past objects and events had been suggested to us again, not in that series in which they had before occurred, nor according to any of those relations which human discernment has been able to discover among them, but irregularly and confusedly, our experience would be no guide to avoid future evil or obtain future good. The sight of a poisonous berry suggests the death which we knew it to have occasioned to him who tasted it; the sight of a wholesome fruit suggests the refreshment which we have repeatedly received; but if these suggestions were reversed, and the sight of the poisonous berry suggested the image of refreshment, and the wholesome fruit that of death, our disorderly suggestions would occasion our destruction. Without order in our suggestions, there could be no such thing as language; the same word suggesting, every time we use it, a different idea. Neither could any social intercourse continue for an hour, if the sight of a friend were to suggest, in intimate combination, not the kindnesses which he has conferred, but the malice, envy and revenge of some jealous and disappointed enemy.

These general laws of succession the Creator has adapted most admirably to our wants, so as to bring again before us the knowledge formerly acquired by us without the return of the objects that produced it, and at the very time when it is most profitable that it should return. These laws thus enable us to profit by experience, and also to extend it by so disposing objects and events,* that by those tendencies of suggestion, on the firmness of which we may place perfect reliance, they shall give us perhaps at the distance of many years, such lessons as we wish them to yield. Moreover, on the skilful management of those laws the whole theory and practice of education are founded.

Let us enquire what are the laws by which certain ideas have a tendency to suggest certain other relative ideas in associate trains of thought.

Aristotle, explaining the process by which in voluntary reminiscence we endeavour to discover the idea of which we are in search, says, we hunt it out among other ideas, either of objects existing at present or at some former time, and from their *resemblance*, *contrariety*, and *contiguity* (ϑηρεύομεν ἀπὸ τȣ͂ νῦν, ἤ ἆλλȣ τινὸς, καὶ ἀφ' ὁμοίȣ ἦ ἐναντίȣ ἦ τȣ͂ συνέγγυς), an enumeration remarkable on its own account, as well as for the close resemblance which it bears to the arrangement of Hume, whom we have no reason to suppose acquainted with this passage of Aristotle. Hume, indeed, is much mistaken in supposing his attempt to classify these laws original; for, not to mention the translation of Aristotle by Aquinas there are various passages in the works of more recent writers in which the influence of *resemblance* and *contiguity*, the two generic circumstances, to which, on his own principles, Hume's triple division ought to be reduced, is pointed out. Thus Ernesti, in the year 1734, in his Initia Doctrinæ Solidioris, says, in describing association—'Phantasia' he calls it—a present idea may suggest an absent one to which it is similar, or of which it is a part, or together with which it has been present on some former occasion.

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* E. g. By writing.

Hume's arrangement being that to which philosophers of our own country are accustomed to refer, the importance thus attached to it gives it a preferable claim to fuller discussion.

'To me,' says Hume, 'there appear to be only three principles of connexion among ideas, viz. resemblance, contiguity in time or place, and cause or effect.' He does not advance this as a perfect division, but merely says he was unable to detect any other principle.

In this classification there are two defects, one founded on extreme simplification, the other of redundancy.

The defect of extreme simplification appears in his mode of accounting for suggestion by *contrast* or *contrariety*. He considers it a mixture of causation and resemblance; for, 'where two objects are contrary, the one destroys the other, i. e. is the cause of its annihilation; and the idea of the annihilation of an object implies the idea of its former existence'. According to this precious theory, the reason why the idea of a dwarf suggests the idea of a giant, is because the idea of a dwarf *destroys* the idea of a giant! and thus by the connecting principle of causation, involved in all destruction, may suggest the idea destroyed! He adds, as an additional reason for the suggestion, that the idea of the annihilation of a giant implies the idea of the former existence of a giant.

On this beautiful explanation, not of the *obscurum per obscurius*, but of the *lucidum per obscurum*, we will remark, first,

If the objects be so contrary as that one destroys the other, where is the resemblance; and if there be any *resemblance* between them, is not this sufficient to to account for the suggestion without having recourse to annihilation or *causation*.

Secondly, there is no truth in the assertion that one contrary destroys the other; nay, the very supposition of a contrast perceived, implies that there is no such annihilation, since both ideas must be present to the mind *together*, else it could not perceive the contrast between them. Hume's gross error consists in accounting for the existence of a feeling, by supposing it previously to exist as the cause of itself.

The idea of the dwarf suggests the contrasting idea of the giant, why? according to Hume's theory, because it annihilates the idea of the giant; but this idea must have *existed* before it could have been *annihilated*; that is, before the operation which was to cause its existence.

LECTURE XXXV.

The error of redundancy in Hume's enumeration of the principles of suggestion, consists in considering causation as a distinct principle from contiguity, to which, *according to his own theory of causation* (the same which is explained in page 27) it ought to be reduced. Therefore, Hume's three principles,—resemblance, contiguity, and causation, resemble the Chinese division of the human race into men, women, and Chinese.

According to Brown, all suggestion, if our analysis be sufficiently refined may be reduced to one foundation—PRIOR COEXISTENCE, or at least such immediate PROXIMITY as is itself very probably a modification of co-existence. But for this nice reduction we must take in the influence of emotions and other feelings very different from ideas, since it is the false restriction of the suggesting principle to ideas alone—a restriction which the phrase '*association of ideas*' implies—that has led to the supposition of different principles; yet, although a nice analysis may lead to this reference of all our suggestions to the common principle of Proximity, it is convenient, for illustrating the principle, to make use of the most striking sub-divisions in which the particular instances of proximity may be arranged, viz. (the same which Aristotle laid down,) resemblance, contrast, and contiguity; resemblance comprehending every species of analogy. The illustrations used by Brown are chiefly rhetorical, both for their beauty, and for the sake of directing the reader's attention to the great principles of human nature, as (when considered in their relation to human emotions and judgments,) the standard of all just criticism.*

The suggesting principle is influenced, first by RESEMBLANCE of *obvious circumstances*, which produce similar impressions on our organs of sense, as where the faithful portrait of a friend suggests the friend himself;† so also a ruff like Queen Elizabeth's, suggests the Queen, for the ruff was a part of the complex notion we had of her; and that part having previously co-existed or been in proximity with the other parts, suggest them all. Secondly, by resemblance founded on more shadowy analogies, as of objects that agree

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* This is exemplified in mixed metaphor, which is contrary to the formal rules of rhetoric, and yet quite consistent with the natural expression of strong emotion, the empassioned mind hurrying from image to image spontaneously suggested, without stopping to reflect whether they be congruous or not. Thus to the simple universal principles of our mental constitution even the boldest figures of the rhetorician are to be traced.

† This case should scarcely be called an instance of *suggestion* by resemblance, any more than in seeing the same person repeatedly, we should say that he suggested himself by resemblance. The eye being affected in the same manner by the light from the picture and by that from the living object.

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LECTURE XXXVI.

The suggesting principle is influenced by CONTRAST; thus the palace and the cottage, the cradle and the grave, suggest each other, and this transition in our thoughts, from one extreme to the opposite, is perhaps a happy contrivance of nature for tempering excess of emotion, by interrupting the too long continuance of trains of any kind. It must occasionally produce some little tendency to salutary reflections in the 'gay licentious crowd,' as it certainly exercises a beneficial influence on those who behold them 'dancing along' through life. The everlasting tendency to *hope* too—that only happiness of the wretched—derives much of its energy from this suggesting principle of contrast; to the force of which may also be traced much of the painful retrospection, and therefore of the salutary influence, of conscience, since contrast must frequently recal the security and happiness of former innocence, and thus soften the mind to repentance.

It is this tendency of the mind to pass readily from opposites to opposites which renders natural the rhetorical figure, antithesis; a figure of great power when skilfully and sparingly used; thus the eternity of ages and the few hours of life—the almighty power of God and human nothingness—it is impossible to think of these in succession without a feeling like that which is produced by the sublimest eloquence.

LECTURE XXXVII.

Of all the general principles of connexion in the trains of our thought, that of CONTIGUITY, in time or place, is the most frequent and extensive in its operation, even when we confine our attention to its grosser and more obvious forms, without attempting, by any very refined analysis, to reduce to it any of the other tribes of our suggestions. This forms the whole calendar of the great mass of mankind, who pay little attention to the arbitrary eras of chronology, but date events by each other, and speak of what happened in the time of some persecution, or rebellion, or war, or frost, or famine. So also with *nearness of place*, on which has been chiefly founded systems of mnemonics; but for this connecting principle, we could have no [illegible] as geography; since, if the idea of the [illegible] been as quick to arise on our conception [illegible] as of Egypt, what a confused chaos [illegible] streams and mountains would our knowledge [illegible] have been! In like manner, every [illegible] would have been beyond our reach, [illegible] founded on the suggestion of the common [illegible] together with their common con[illegible] regular order of proximity. But the [illegible] illustration of the influence of co-exist[illegible], in associating ideas, is the com[illegible] by the infant over all the complicated [illegible] The thing signified recalls [illegible] versâ because both have been repeatedly at the same moment presented to the senses. It was not the fertility of the Holy Land, but the *local conceptions* associated with it, which led away from their homes in the far west the mighty and devoted hosts of the Crusaders.

But since the conception of one object may suggest the conceptions of many different objects; e. g. the sight of a picture may suggest the person whom it resembles, or it may suggest the artist who drew it, or the person who gave it to me, &c.; why does it suggest one of these conceptions rather than the others? This is an inquiry which has been neglected by philosophers.

Yet the variety of the suggestion must show that the laws of suggestion, as a principle of the mind, are not confined merely to the relations of the successive feelings—in which case the suggestion would be uniform. But that though these may be considered the *primary* laws, there must be some other circumstances which modify their peculiar influence at different times and in different persons, so as to induce one associate conception rather than another, which circumstances may therefore be denominated *secondary laws of suggestion.*

These secondary laws we may thus enumerate:

1. *Length of time* during which the original feelings continued when they coexisted or succeeded each other. The longer we dwell on objects, the more fully do we rely on our future remembrance of them.

2 *The degree of liveliness* of the original feelings.

That strong feeling of interest and curiosity, called attention, tends to fix objects in the mind, not only by leading us to dwell longer on the consideration of them, but also by giving them more vivacity.

3. *Frequency of occurrence.* 4. *Recentness of occurrence.* There is a very striking exception to this law in the case of old people, who often remember the events of their youth better than those of yesterday; still, when the time is not extended so very far back, the general law holds good, even with them; thus, they remember the events of yesterday better than those of last year.

5. *Degree of purity* from mixture with other feelings. Our successive feelings are more closely associated according as each has co-existed less with other feelings: a song heard fifty times, and sung each time by a different person, is less likely to suggest any of the singers than if we had only heard it sung by the one person.

6. *Differences of original constitution*, either of intellect or of temper. *Of intellect*,—these modify the influence of primary laws in two ways; first, by augmenting and extending the influence of all of them, as in the difference in strength of memory in different persons: secondly, by giving greater proportional vigour to one set of tendencies of suggestion than to another. It is in this modification of the suggesting principle, and the peculiar suggestions to which it gives rise, that *genius* chiefly consists. In the trains of thought of a mind endowed with inventive genius;

the prevalent suggesting relation is *analogy;* in the mind of an imitator, it is grosser *contiguity.* In the mind of a poet of high order, the conception of his subject awakens groups of analogous images, which had never before existed in similar combination, and which therefore are boundless in number. The prevailing suggestions of the imitator being images previously co-existing in combination, are therefore limited in number, and admit no novelty. The whole difference lies in the occasions of suggestion, not in the images suggested. It is the same with inventive genius in the sciences and the several arts. He may perhaps be called a philosopher who knows accurately what others know, and with the same means produces the same effects; but he alone has philosophic genius to whom analogous effects suggest analogous causes, and who, by the suggestions of analogy, produces new effects, or the same effects by new and simpler means. *Of temper,*—we court the company of the cheerful and shun that of the sullen man, because of the difference in the trains of thought which arise by spontaneous suggestion in those different minds, from their constitutional diversities of disposition.

And not alone those constitutional and permanent, but also, 7thly,—*Temporary differences* of emotion modify the influence of the primary laws. Thus, we have each our days, when we are more disposed to mirth, and our days, when we are disposed to gloom, and our trains of thought are tinctured with the corresponding varieties. The gaiety of youth is not merely a cause, but also an effect of the tendency of the mind at that period, to suggest images of hope and pleasure on almost every occasion.

8. *Differences of bodily state.*—Thus how different the trains of thought in health and sickness.

9. *General tendencies produced by prior habits.*—By habit we do not mean the influence of habit, in suggesting images which have been already frequently suggested in a certain order—for it would then be simpler to reduce the habit itself to the mere power of associates, but we speak of cases where the images suggested may have been of recent acquisition, but are suggested more readily, in consequence of *general tendencies produced by former habits.* Thus when men of different professions observe the same circumstance, how different will be their subsequent suggestions. A striking example of this power of habit to modify suggestion, may be observed in the command which it gives to the orator, who has been long practised in extemporary elocution—a command not of words merely, but of thoughts and judgments. The whole divisions of his subject start before him, as it were without an effort on his part, image after image arises to illustrate it, and proper words in proper places, instantly embody his sentiments.

Of these nine secondary laws, the first four which relate rather to the momentary feelings themselves, than to the particular frame of mind of the individual, have a double operation according as they apply to both the associate feelings, or according as they apply only to one of them. For even in this latter case, the tendency to association of the two feelings is greatly increased, though, of course, not near so much as when these four laws apply to both feelings.

Any one of the nine is sufficient to change completely the suggestion which would otherwise have arisen from the operation of the primary laws, but most usually many of them combine in one joint effect. It is not wonderful therefore, that the result in different individuals should be so various.

LECTURE XXXVIII.

The degree of liveliness of the suggesting feeling influences greatly the degree of liveliness of that which is suggested. Hence, although the conception of an object may be suggested, either by some other *conception*, previously existing in a train of internal thought, or by the *perception* of some other object really existing without, it is by no means indifferent in which of those two ways it has been suggested, the suggestion being, in the latter case, infinitely more vivid than in the former.

'After time has in some degree reconciled us to the death of a friend,' remarks Dugald Stewart, 'how wonderfully are we affected the first time we enter the house where he lived.' 'In the case, too, of those remarkable scenes, which interest the curiosity from the memorable persons, or transactions, which we have been accustomed to connect with them, in the course of our studies, the fancy is more awakened by the actual perception of the scene itself, than by the mere conception or imagination of it. Hence, the pleasure we enjoy in visiting classical ground.'

This superior influence of perceptible objects, in awakening associated thoughts and feelings, Stewart attributes to their *permanent operation*, as exciting or suggesting causes. 'When a train of thought takes its rise from *an idea or conception* merely, the first idea soon disappears, and a series of others succeeds, which are gradually, less and less related to that with which the train commenced; but when the train takes its rise from a *perceptible object*, the exciting cause remains steadily before us, and all the thoughts and feelings which have any relation to it, crowd into the mind in rapid succession, strengthening each others' effects, and all conspiring in the same general impression.'

In confirmation of this simple and beautiful explanation, Brown remarks, that it is not every object of perception which renders the train of thoughts that succeed it more vivid, but only such objects as are in themselves interesting, and therefore lead the mind to dwell on them, giving that time which is necessary, for gathering and bringing forward the crowd of associate ideas, which conspire in heightening the particular emotion.

How much it is in the power of circumstances to give interest, and even a species of dignity, to the most vulgar object, is well illustrated in the following paragraph :—

'Whilst we were at dinner,' says Captain King, 'in this miserable hut, on the banks of the river Awatska—the guests of a people, with whose existence we had before been scarce acquainted, and at the extremity of the habitable globe—a solitary half-worn *pewter spoon*, whose shape was familiar to us, attracted our attention; on examination, we found it stamped on the back, with the word *London*. I cannot pass over this circumstance in silence, out of gratitude for the many pleasant thoughts, the anxious hopes, and tender remembrances, it excited in us.'

There can be no doubt, but that often before the discovery of this spoon, objects familiar to all the crew must have brought their distant home to their remembrance. But such a spoon, found in a country so distant, excited astonishment, and the importance which the surprise at the discovery gave to it, must have caused them to dwell on it, till it awakened all those tender remembrances, which an object more familiar, and therefore less interesting, would have failed to excite.

The chief source, however, of the vividness of the emotion, appears to Brown to be something more than the mere object of perception, because an external object, if very interesting, will produce a considerable effect instantaneously, before this permanence has time to collect and condense a great number of ideas. Thus, it is likely that Captain King had often thought a longer time together of Britain, and had often thus gathered in his imagination, more ideas connected with his home, than at the moment when the sight of the spoon began to affect him powerfully. What is this additional circumstance?

In the complex state of mind, consisting of the *perception* of an interesting object, and the harmonizing *conceptions* which it suggests, coexisting as they do altogether, the *feeling of reality*, which belongs to one part of the co-existing group, viz.—the perception, diffuses itself over the whole, giving to all the parts a sort of faint temporary impression of reality.

Every moment, doubtless, the conviction of the absolute unreality of the conceptions recurs to the mind, and the whole which seemed to exist before us, vanishes again, and is lost, but almost every moment likewise the illusion itself recurs. And the feeling of the presence of a number of beloved objects, thus frequently renewed and lost, *heightens* the violence of emotion; an effect, which the fluctuating between two opposite feelings always produces; e. g. One who could bear the pressure of any lasting affliction unmoved, yet dissolves into tears, not on an increase of misery, but on the sudden impulse of some unexpected joy.

The Swiss, at a distance from his native country, may often have been led, by some accidental image, in a train of thought, to the remembrance of his home, but the ideas of his imagination, not being attached to any thing external and permanent, were comparatively faint; let him hear the song of his home, and *the reality* of the song diffuses itself over the conception of his home which it awakens, and which mingles with it, just as the actual perception of his home used formerly to be mingled with that of the same tune.

This communication of the feeling of external reality, from an object perceived, to the suggested conceptions that coexist with it, is not without example; it is a thing of constant occurrence, in vision the *real sensations* of colours and the *associated conceptions* of longitudinal distance and figure are so blended, that we ascribe external reality equally to the whole, to the merely imaginary conception, as well as to the really felt sensation. By a similar combination of perception and imagination, the superstitious incorporate their fears with the objects which they dimly perceive in twilight, the white sheet or other shadowy outline gives a sort of permanent and terrifying body to the spectres of their own imaginations.

To this combination of the reality of perception, with the harmonising conceptions which it suggests and with which it continues to blend—an effect in some degree similar takes place, in the combination of any very vivid *conception* with other mere conceptions, when they harmonise and unite readily as a complete whole. The vividness of the one being, as it were, diffused over the faintness of the other. The influence here is, of course, far less than in the case of the perception.

LECTURE XXXIX.

In the last lecture we remarked the positive influence over our conceptions, which we suppose the *perception* of some kindred harmonizing object to possess. But even were it not to operate positively, still would its negative influence be great. *It would at least tend by occupying our perception with a harmonizing object to diminish the impressions produced by other objects* —impressions which, not harmonizing with the particular associate ideas, would at once break the illusion of their reality. It is chiefly this inconsistency of our perceptions with our suggestions, which in our waking hours prevents that belief in the reality of the objects of our imagination, which otherwise we should be disposed to entertain, while sleep on the other hand, excluding nearly all sensations, allows the train of ideas that passes through the mind to assume an impression of actual reality.

In many cases where the perception of a new or long-lost object gives warmth and animation to our train of thoughts, another circumstance has great influence. *An object daily before our eyes becomes associated with innumerable ideas which have no peculiar harmony* or agreement with each other; though it may suggest these variously at different *times, it is apt to mingle some of them together*; e. g. A memorial received from a friend, if it remain in our possession, soon becomes associated with events and feelings that have no relation to our friend, but a newly-discovered memorial of a long-lost friend, presents his instant image *unmixed* with other conceptions which would have weakened its impression.

There is, moreover, the influence of the feeling of astonishment to be taken into account. In common circumstances, for which we are prepared, we exercise a self-command which keeps down any violent emotion, not so in cases of unexpected discovery. Thus the sudden appearance of a foe in ambush strikes a panic in the breast even of those, who would have marched against him undaunted in the open field.

There is scarcely one of our moral feelings, which the diffusion of the felt reality of something that exists, over harmonizing images of unexisting things, does not modify; we have instanced it in the fears of the superstitious, we may also mention the suspicions of the jealous, to which the felt truth of the slightest harmonising fact communicates its own reality.

The additional liveliness which objects of perception communicate to our associate feelings by their *permanence*, leads us to an important property of the suggesting principle. In the train of thought, one idea does not always fade away when a new one arises, sometimes it does, and the sequence will be exclusive, in the very moment, of all that preceded the particular suggestion, but sometimes, and perhaps more generally, the preceding thought remains and blends with that which it suggested, and there is a virtual coexistence.

Many objects of external sense excite only a momentary sensation, forgotten, almost as soon as felt, while on many others we dwell with the liveliest interest; so likewise many conceptions exist but for a moment, and serve only for the suggestion of other ideas, some of which perhaps may be equally short-lived, while others, more lively and interesting, pause longer in the mind, and though they suggest ideas connected with themselves, continue with them, and survive perhaps the very conceptions which they suggest. The sight of a book may suggest the friend who gave it, the remembrance of the friend may suggest his family—an evening spent with them—the subjects of conversation; still the conception of the friend may continue, mingled indeed with various conceptions as they rise successively, but still coexisting with them—and is perhaps the very part of the complex group that after a long train of thought, during which, it has been constantly present, suggests at last some new conception that introduces a different train of its own, of which the conception of the friend no longer forms a part.

Without this *continuance* and *coexistence* we should be *incapable of regularly prosecuting any design*. When we sit down to study any subject, we have first some faint conception of the subject itself: this in the first stage of our progress suggests some other conception; this second conception, if it alone were present, having various relations of its own, as well as its relation to the subject which suggested it, would probably excite a third conception, which had no reference to the original subject. It would hence be impossible to think of the same subject even for a single minute.

What gives the idea of our home such powerful influence over us? Not the conceptions which it suggests in separate succession, for none of these would singly have such power, it is the coexistence of the group, and the longer we dwell on the idea, the more additional images are suggested, which, not by excluding, but by combining with the images previously excited, enhance the general effect.

This doctrine of the continuance of the suggesting feeling with that which it suggests, is of very extensive application, in treating of various intellectual phenomena, and still more in treating of our emotions. Yet it has been much overlooked, because the habitual use of the terms *succession* of ideas, *train* of ideas, *current* of our thoughts, &c., leads us to think of our ideas as merely consecutive.

LECTURE XL.

The doctrine of association of ideas, which is generally received, is as follows:—That when two objects are perceived together, for the first time suppose, besides the mere perception, another operation of the mind, totally distinct, takes place at the same time, *a mysterious process* of association, by which an union between the two conceptions is formed, and that it is *in consequence of this mysterious connection* thus formed at the *first* perception of the two ideas, oftentimes afterwards, when one of them is perceived, though the other be absent, yet the perceived one carries into the mind linked along with itself, the conception of its *former* associate.

The assertors of the necessity of this mysterious connecting process, are also assertors of the radical distinction between the different tribes of suggestions. They do not consider the suggestions of resemblance, contrast, &c. to be specifically the same as those of mere proximity. We have already remarked, that they are all capable of being reduced by a subtile analysis to this principle. Let us exemplify this reduction.

Resemblance reduced to proximity. I see a stranger whose eyes, for example, resemble those of a friend of mine, and the stranger's face immediately suggests my friend's—why? Because the stranger's eyes produce the same sensation in my mind which my friend's formerly did, and that sensation suggests the conception of those other sensations to which it was formerly *proximate*, viz. the other features of my friend.

Analogy reduced to proximity. *A fine morning in spring* suggests the *cheerful freshness of youth*—why? Because witnessing that cheerful freshness formerly excited a *peculiar emotion* in my mind, and the fine morning excites now that same emotion. The emotion immediately suggests the idea to which it was formerly *proximate*, viz. the cheerful freshness of youth. This is an association, not of *ideas*, but of *emotions* and *ideas* mingled. The restriction involved in the unfortunate phrase, 'association of *ideas*,' prevented philosophers from discovering the proximity in cases like this, where such proximity never really existed as far as regards the *ideas* in the train, but was only to be found in some emotion or internal sentiment or judgment that was common to the two.

Contrast reduced to proximity. I see a man, e. g. with a very large nose; the reflection which it excited is, what a singular nose!—afterwards I see another person with a very diminutive, one, which excites a similar reflection of what a singular nose, and this reflection suggests the idea to which it was formerly *proximate*—the idea of the very large nose. Thus objects contrasted in form, by exciting *sentiments* which have a *resemblance*, suggest each other, and thus the case of contrast is reducible to that of resemblance, and therefore to proximity. And thus every relative suggests its correlative, by means of the circumstance of agreement in which the relation consists, whcih being common to both, forms a connecting link of mere proximity.

Although by such nice analysis, all classes of suggestion may be reduced to one, yet as this reduction involves the principle that there is no necessity for any mysterious process of association between two ideas previous to the suggestion itself, in his argument with the assertors of such necessity, Brown takes them on their own ground, and allows distinct species of suggestions.*

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* In illustrating our suggestions, too, he thought it safer to consider them as distinct tribes. Because the process of reduc-

In fact, the chief weight of his argument rests on the existence of distinct species.

We will give a concise view of Brown's doctrine of suggestion, and then proceed to his arguments against the received hypothesis.

His theory is this. At the first perception of an object, no mysterious association was formed between our idea of it and those of other objects,—no connecting process in the mind; no second process, none but the one, the mere perception; but when at any time the perception of one object is followed by the conception of another and absent object, then and not earlier, the law of suggestion first operates, then is its primary influence exerted; the perception of the present is followed by the conception of the absent object, not because of any earlier association, but because it is an *original susceptibility* of the mind, to pass from state to state, and to do this not at random, but *in a certain order*.* As in the process of *seeing* objects there is no mysterious connection of the organ with light, at some period prior to that at which light first acted on the

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tion, being very subtile, was more liable to be fallacious.—Because the suggestions of contrast and analogy seem equally immediate as those of proximity—Because, whether the feelings have really been proximate or not, the great mystery of suggestion still remains the same.

* The law being, that one state of mind should be followed, not by any other indifferently, but by those to which it bears some particular affinity from resemblance, contrast, &c.

organ; so in suggestion, there is no necessity for any prior union or association.

He argues thus:

We have no *consciousness* of any such process of association taking place, either at the time of the perception or at the time of the suggestion.

The laws of suggestion then, as opposed to what may be called laws of association, in other words, the circumstances which seem to regulate the spontaneous successions of our ideas, without reference to any former intellectual process except the simple primary perceptions, from which all our corresponding conceptions are derived, form a legitimate theory, being a perfect generalization of known facts, without a single circumstance assumed, the other doctrine is a gratuitous hypothesis.

A case of contrast, if contrast be a simple principle of suggestion, as the assertors of *association* must consider it, and if it be not reducible to contiguity, decides the question. Suppose the first sight of a giant to suggest the conception of a dwarfish person of our acquaintance; such a case is easily explained according to our view of suggestion, it being one of the laws of suggestion that perception should suggest *contrasting* conceptions; but is quite inexplicable according to the other view; there being no room for any association, unless objects were associated before they had existence, till the moment of the actual suggestion of the dwarf, the two ideas having never before coexisted, and then the suggestion must have arisen before the association which gave rise to it could take effect—a manifest absurdity.

That an object seen for the first time suggests many relative conceptions, is undeniable, and this single consideration is enough to overturn the received doctrine of association, since even, admitting that there might, in cases of suggestion of a previously *contiguous* object, have been a prior connexion between the two ideas, yet in this case at least there cannot. This case therefore proves, that the tendency of the mind in suggestion is not to exist successively in states which have been previously associated, but simply in such successive states as have to each other certain relations of resemblance, &c.

That the perception of a giant, which had never before coexisted with the idea of a dwarf, should yet be sufficient without some prior association to induce that idea, is no doubt very mysterious, but not more so than if the two ideas had previously coexisted; the mystery lies in the *fact* which all have experienced and must admit—the recurrence of an idea without the recurrence of the external cause of that idea. This fact is the only mystery in Brown's theory, while the other doctrine involves a second mystery—of whose existence we have no experience—the previous association of the two ideas.

The term *suggestion* is to be preferred to *association* as a more accurate general term for all the spontaneous successions of our thought. Because, by making the suggestion to depend on a prior combination, we should assume a process of which we have no consciousness, and exclude, by the impossibility of such previous combination, all classes of suggestions except that of *contiguity in time*; another objection to the term association of ideas was given in the beginning of this lecture.

The principal advantage resulting from Brown's theory, is the great simplification of the phenomena by removing much of the mystery which that more cumbrous hypothesis threw over some of the processes of thought; when suggestion was supposed to depend on former associations, and when in many cases it was impossible to discover any coexistence or immediate succession of the primary perceptions by which such associations could be formed; it occasioned many cumbrous distinctions and more cumbrous hypotheses in order to account for the apparent anomalies.

The phrase association, instead of suggestion, thus introduced the belief in many superfluous powers; e. g. The power of *imagination* or *fancy* is nothing but suggestion; but as the conceptions, which are called imaginations are as it were new creations, which, as they never before existed in the mind, of course could never before have been combined with our other thoughts, their rise therefore could not be attributed to association, but required a new power to account for them, and therefore the 'power of imagination' was coined to supply the emergency.

The chief cause which led to the belief of an actual union of ideas previous to suggestion, is the peculiar importance of that class of suggestions, which for its characteristic has *proximity* and therefore former coexistence, or immediate succession of the direct objects of thought; when objects perceived together arose again together, it was a natural illusion that there was some mysterious union upon which the suggestion depended.

What strengthens the illusion is, that in voluntary reminiscence we use the relation of direct proximity of objects, we think of all the variety of events that happened at the time at which we know that the event now forgotten, and sought to be recollected, occurred, and we pursue this whole series through its details, as if we expected to discover *some tie* that may give into our hand the fugitive feeling which we wish to detect.

Moreover, when once an idea has suggested another, suppose by contrast, the two ideas are then *contiguous*, and the same one may suggest the same second idea again, not by reason of their contrast as at first, but by reason of their contiguity; and the contiguity really operating at the subsequent suggestion may deceive us into a belief that such contiguity also connected the two ideas at the time of the former suggestion.

In all these three ways our thoughts in the consideration of every simple suggestion continually turns to the past; and the suggestion itself is converted into association, the exceptions, numerous though they are, being forgotten, or receiving a different name, that we might satisfy ourselves with a general law.

LECTURE XLI.

We next proceed to shew how all that variety of powers which owed their fancied existence to the mistake concerning the nature of association, is reducible to the principle of simple suggestion; and, on account of its greater simplicity, we commence with the *power of conception.*

It has been defined, the power that enables us to form a notion of an absent object of perception or of some previous feeling of the mind.

We certainly have a mental power or susceptibility by which the perception of one object may excite the notion of some absent object—namely, the power of suggestion, when stripped of the illusion as to prior association. And if the conception be separated from the suggestion, nothing will remain to constitute the power of suggestion, which is only another name for the same power; e. g. I see a volume belonging to a friend—it suggests the friend himself. I seem to see and hear him. The notion of my friend is called a *conception* and is said to indicate *the power of conception;* but what is there in it more than a suggestion, for if there were no suggestion of my friend, I could have no conception of him, and if there were no conception of him, it would be absurd to speak of a suggestion in which nothing was suggested.

In no other way is conception distinguishable from suggestion than as a part is from the whole as a *sight* from *vision*, we *see* innumerable objects in succession, because we are susceptible of *vision*, we *conceive* innumerable objects in succession, because we are susceptible of that spontaneous suggestion by which conceptions rise after each other in regular trains; the laws of suggestion or association being merely the general circumstances according to which conceptions or other feelings, follow conceptions or other feelings.

This duplication of a simple power to account for a single state of mind is a striking example of the influence of the mistake about association, inquirers not directing their attention to the single moment of suggestion when the conception rises, but fancying there was need for some mysterious association at some period before, considered the former process of association to imply one mental power, and the after rise of the conception to imply another.

Between the *terms* conception, and suggestion, there is this difference, the former has a more immediate reference to the object conceived, the latter to the conceiving mind.

Another of these supposed intellectual powers is MEMORY.

Our remembrances are complex states of mind; they combine *conceptions* with a feeling of a certain *relation* of antecedence to our present feeling; of these* two they consist, and of nothing more. If you separate from a remembrance part of its complexity—that part which constitutes the notion of a certain relation of antecedence—nothing remains but a conception. The conception, as we have already seen, does not imply a peculiar power, and neither does the other part of each remembrance—the feeling of the relation of antecedence—imply any peculiar power generically distinct from that power which perceives other relations. For, though the notion of time is very obscure and truly deserving of St. Austin's* remark on it, still it is, *as far as we are capable of feeling* or understanding it, only a certain feeling of relation, and nothing more: a relation which we feel nearly in the same manner as we feel the relation which bodies bear to each other as coexisting in space; we say of an event that it happened a month ago, as we say of a house that it is two miles from such a place, referring in each case the distances which we measure, to some point, as if it were a fixed point. If we could consider no more than *two* events together, we need never have invented the word time, simpler words expressive of the simple relation between the two, such as *before* and *after*, *prior*, *subsequent*, *succeeding*, would have done us, but because we are capable of considering a variety of events, all of which are felt to bear to that state of mind which constitutes our present consciousness, some relation of *priority* or *subsequence*, which they seem to us to bear also reciprocally to each other, the varieties of this relation oblige us to invent a general term for expressing them all. This general term expresses no *thing*, no *reality*, but only relations felt by us in the objects of our conception, if we abstract the objects which have the relation of priority and subsequence or succession we can no more have a notion of time than we can imagine brightness or dimness without a single ray of light. When therefore the notion of time is combined with our conceptions, as in the case of memory, all that is combined with them is the feeling of a relation, and the only powers exercised in remembering, are simple suggestion, and the capacity of feeling relations, that is *relative suggestion;* but with these two powers no other is requisite, no power of memory.

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* That is, in other words, with a feeling of *priority* or *time*.

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* Si nemo a me quærát scio, si quærenti explicare velim nescio.

The relations of coexistence in space are not less relations than those of succession in time, yet when we conceive a distant place, and think of its distance, we are not considered to exercise a new intellectual faculty. Why should we then, when we think of a past event and of its priority to the present time.

With respect to that memory combined with the desire of remembering something forgotten, to which we give the name of recollection, Brown combats the opinion, that it is under our control. It is not true, he says, that we will the existence of certain ideas, and that they arise in consequence of our volition; for to will any idea is to know what we will, and therefore to be conscious of that very idea, and what we know so well as to will its existence, we need not desire to know.

Those who wished to avoid the inconsistency of this direct volition, adopted a theory of indirect volition. Though I have not the power of directly calling up the forgotten idea, e. g. a piece of news communicated by a friend, yet I have, say they, the power of calling up such ideas as I know to have coexisted with with it; e. g. the place where it was told, the person who told it, &c. If, says Brown, in answer to this, the accompanying ideas arise of themselves to the mind according to the simple course of suggestion, there is not even indirect volition in the parts of the spontaneous train, and if they do not arise of themselves, but are separately willed, there is then as direct volition and as much absurdity involved in this calling up of the accompanying circumstances, as in calling up the very conception itself; the only difference is, that, instead of one, I have now many direct volitions, and have consequently multiplied the absurdity. The true theory of recollection is to be found in the permanence of the desire, and the natural spontaneous course of the suggestion. I do not call up the ideas of the person and place, but these, by their relation to the desire which I feel, arise uncalled, and the mere conception of these may naturally suggest the conversation sought to be remembered; if it does, the object is gained, and the desire ceases; if not, my desire continuing and being now more strongly, because more recently associated with the conceptions of the person and place, keeps them constantly before me, till, in the variety of suggestions to which they spontaneously give rise, I either obtain at least the remembrance which I wish, or by some new suggestion am led into a new channel of thought, and forget altogether that there was any thing which I wished to remember. What is termed voluntary recollection, then, whether direct or indirect, is nothing more than the coexistence of some vague and indistinct desire with our simple trains of suggestion.

Since memory is thus reducible to suggestion, of course the secondary laws of suggestion explain the diversities of memory in different individuals.

It is a common remark, that men of good memory have not profound judgment, Brown admits that men of high intellect have not that kind of memory which is adapted to common conversation, and which people are too ready to consider exclusively as memory, and from so considering it, imagine that memory is unfriendly to genius; namely, the suggestion which takes place according to the mere imitative relations of *contiguity* in time and place of the very objects themselves. This, from the sort of connexions that it involves, presents itself to us more readily, and seems more abundant, merely by coming more frequently before our view. But a good memory in its best sense, as a rich and retentive store of conceptions, is not unfriendly to intellectual excellence; on the contrary, the richer the memory and the greater the number of images that will arise in the mind of the poet and of powers and effects in the philosopher's, the more copious will be the suggestions of analogy;

and the more copious the suggestions of *analogy* may be, the richer and more diversified must be the inventive power of the mind. Lord Kames illustrates the species of recollection of a vulgar mind, by quoting from Shakspeare the many trifling facts heaped together by Mrs. Quickly to force upon Sir John Falstaff's remembrance his promise of marriage. According to him, the reason why, in the mind of some persons, thoughts and circumstances crowd on each other is *the bluntness of the discerning faculty*, 'a person,' says Kames, 'who cannot accurately distinguish between a slight connexion and one that is more intimate, is equally affected by each, and so must have a great flow of ideas, because they are introduced by any relation indifferently, and the slight relations being without number, furnish ideas without end; while, on the other hand, a man of accurate judgment *cannot have a great flow of ideas*, because the slighter relations making no figure in his mind, have no power to introduce ideas; and hence it is that accurate judgment is not friendly to declamation or copious eloquence.' It is not, says Brown, from any defect of memory, as Lord Kames thinks, that fewer of the ideas which prevail in common conversation arise to a mind of accurate judgment, but because the prevailing tendencies to suggestion in such a mind are of a species that have little relation to the dates, &c. of the occurrences that are the ordinary topics of familiar discourse; the memory differs in quality, not in quantity; and though the flow of mere words may be more copious in him who is not accustomed to dwell on the permanent relations of objects, but on the slighter circumstances of perception and local connexion; yet the whole series of suggestions of which a profound and discriminating mind is capable, is greater upon the whole than the number of those which arise so readily to the mind of a superficial thinker. The great difference is, that the wealth of the one consists of small pieces in continual request, and therefore brought more frequently into view; while the abundance of the other consists chiefly in more precious coins, which are rather deposited than carried about for current use, but which, when brought forward, exhibit a magnificence of wealth to which the petty counters of the multitude are comparatively insignificant.

LECTURE XLII.

Another class of phenomena, which has been erroneously ascribed to a peculiar intellectual power, is that of *Imagination*, or Fancy. We do not merely *perceive* objects and *conceive* or *remember* them simply as they were, but we have the power of combining them in various new assemblages. These new combinations of the ideas previously existing in our mind comprehend the phenomena of Imagination. It has been generally regarded as implying a *voluntary* selection and combination of images for the production of compounds different from those which nature exhibits. This opinion is false in part at least, for new complex conceptions often arise and start, as it were, upon the mind, in its passive trains of thought.

By the union of desire with the phenomena of Imagination, a difference is produced similar to that by which mere perception differs from attention, and mere memory from recollection. It may therefore be considered in two lights; 1st, as it takes place without desire, or 2dly, as it takes place with desire or intention.

1st, That there is imagination or new combinations of images and feelings unaccompanied with any desire, and consequently altogether void of selection, is as true as that there is memory without intentional reminiscence. We as little *will* the varying scenery of our reveries, and all the strange forms which seem to people them, as we will the conception of any person with whom we are acquainted, when that conception rises to us in instant suggestion merely on reading his familiar name.

I may conceive gold, it is said—I may conceive a mountain; and these states of my mind, which are only faint transcripts of the past, are simple suggestions. But if I conceive a golden mountain, a thing which I never saw, I must have *put* together voluntarily these two conceptions, and, strictly speaking, have formed not a mere conception, but an imagination. This '*putting together*' Brown rebuts by an argument similar to what he used for shewing the absurdity of supposing that we can *will* the existence of any particular idea. (See page 230.) We cannot

Thus, in the process of composition, it appears that the state, or rather that the states of mind are not the exercise of a single power, but the development of various susceptibilities, 1st, desire—2d, simple suggestion, by which conception rises after conception—3d, judgment or relative suggestion, by which a feeling of relative fitness or unfitness arises on the contemplation of the conceptions that have thus spontaneously presented themselves.

That which is most efficient in fixing our train of thought in steady relation to our subject, so as to allow continuous composition, is the *vivid feeling* of desire; since the conception of the subject, being essential to the desire, must coexist with it, and, while so coexisting, must, from the influence of the common laws of suggestion, induce successively various other conceptions related to the primary subject and to each other.

But what is also very efficient for this fixing of our thoughts, or at least for recalling them when they may have wandered from the subject, *is the constant presence of the same objects of perception* around us—the pen, the desk, &c.; these, though from their connexion with other subjects they might have a tendency to lead our thoughts away from that one which we desire to develope, yet from being more *recently* associated with that subject, have most of them a stronger tendency to lead us back to it if we should wander into other trains of thought.

From this analysis of imagination, it appears to involve no operation of any distinct power, but merely the rise of various images according to the ordinary laws of simple suggestion in coexistence with feelings that arise from some other common principles of the mind, particularly desire and the feeling of relation.

That peculiar tendency of suggestion which distinguishes the conception of an inventive genius from those of a common mind (see page 208) distinguishes also their imaginations.

But what then becomes of that *selection* of which writers on the subject of imagination speak so much, and which Reid illustrates as follows:

"We seem to treat the thoughts that present themselves to the fancy in crowds, as a great man treats the courtiers that attend his levee. They are all ambitious of his attention, he goes round the circle, bestowing a bow upon one, a smile upon another, asks a short question of a third, while a fourth is honoured with a particular conference, and the greater part have no particular mark of attention, but go as they came. It is true, he can give no mark of his attention to those who were not there, but he has a sufficient number for making a *choice* and *distinction*."

With respect to this selection, we may remark, that when many images are present, the mind cannot, 1st, *combine* two of them with the express *design* of forming a third; nor, 2dly, can it directly *banish* any third or fourth image which may coexist with these two, and which we may conceive to be incongruous to our subject. The former is impossible, because this would be to have already formed that third which we are supposed to will to form; the second is impossible, because the very desire of banishing any thought would only have the effect of rendering it more vivid, and, of course, more permanent.

How then are we to account for this selection? We account for it as follows: We feel the congruity of certain images with a plan already conceived by us. This feeling of congruity is a feeling of approbation, which acts both directly and indirectly; directly, as approbation, by rendering the conceptions to which it is attached more vivid and prominent, in consequence of which they outlast the fainter conceptions that coexisted with them;* and indirectly, by inducing that very feeling or combination of feelings which we term *attention*, and adding therefore all the vivacity which attention gives to the relative and harmonizing images.

Of the various images that exist in the mind of a poet in these efforts of fancy which we term *creative*, because they exhibit to us results different from any that have been before exhibited to us, what is suitable to his preconceived subject remains, not because he wills it to remain, but because it is rendered more vivid by his approval. What is unsuitable disappears—not because he wills it to disappear—but because it has not attracted his admiration and attention, and therefore fades like every other faint conception. Nature is thus to him what she has been in every age, the only true and everlasting muse—the inspirer.

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* For a similar effect of our emotions, see the analysis of *attention* (page 182).

LECTURE XLIII.

The next class of phenomena to which, as in their chief circumstances, modes of the principles of suggestion, we will proceed, is that of the phenomena of Habit.* Dr. Reid ascribes the effects of these to a peculiar ultimate principle of the mind. This doctrine we shall see to be erroneous.

The nature of habit may be considered in two lights; 1st, as by repetition produces a greater *tendency* to certain actions; 2nd, as it occasions greater facility and excellence in those actions.

I. That the frequent repetition of any action increases the tendency or proneness to it, is a thing of every day's observation; and it is not difficult to explain why it should do so, when we consider that the influence of association is not limited to ideas (see page 197), but extends also to our other feelings, e. g. to our emotions. These desires, or emotions, like our conceptions or ideas, may form a part of our train of suggestions; and therefore, when the states of mind, which constitute certain desires, have frequently succeeded certain perceptions, it is natural that, on the mere renewal of the perceptions, the desires also should recur. Thus, to one who has long yielded to habits of intoxication, the mere sight, or mere conception of the poisonous beverage will induce, almost as if mechanically, the series of mental affections on which the vitiated appetite and the muscular motions necessary for gratifying it depend; and that desire of drinking, which, at the early growth of the fatal passion, was perhaps rather a consequence of the pleasures of gay conversation that accompanied the too frequent draught, than of any enjoyment from the draught itself, becomes at length closely associated with the mere perception of the intoxicating liquid, and all the parts of the process are revived by the mere revival of a single part. What is called "the power of Habit" is thus *mere suggestion*, and nothing more. The perception of the liquor suggested the desire of drinking it, and the desire suggested all those other states or motions which had been its usual attendants.

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* Of the effects of *Habit*, as modifying the suggestions of mere analogy, we treated when considering the secondary laws of suggestion (see page 210). But the Habit which we are now to examine, is that in which the effects are not analogous merely, but strictly similar in a tendency to the repetition of the same actions. In contradistinction from this latter sense of the word Habit, the secondary law of suggestion may be called *General Habit.*

II. We have now to account for the increased facility in certain actions from the effects of habit. He who should attempt, for the first time, to dance upon a tight rope might expect to make a very sorry exhibition; one certain series alone of muscular contractions is best fitted for producing a certain series of attitudes; and though we may have all the muscles necessary, and the power of producing in them the requisite contractions, we have not, merely from the sight or conception of the particular attitude, a knowledge either of the particular muscles that should be moved, or of the particular degree of contraction. In our ignorance of these we either contract wrong muscles, or if we contract the right ones, we do it with wrong degrees of contraction. By frequent repetition we gradually learn and remedy our mistakes. But we acquire this knowledge very slowly, because we are not acquainted with the particular parts of our muscular frame. And, even if we were most skilful anatomists, we should still come in for our share of falls, because we should still be ignorant of the separate states of mind, that might instantly produce the desired limited motions of the desired muscles. In a long series of trials we find what volitions have produced an effect that resembles most the model which we have in view. At almost every repetition, either some muscle is left at rest which was uselessly exerted before, or the degree of contraction of the same muscles is brought nearer and nearer to the desired point, till at length, having found the particular volitions which produced the desired effect, we repeat these frequently together, so that, on the general principles of suggestion, they arise together afterwards, with little risk of the interference of any awkward, incongruous volition.

From the accurate reference of our suggestions to laws of mind that operate only at the moment of suggestion, without any previous mysterious link, ing of our perceptions, (see page 219), we derive advantage in the refutation of mechanical theories of association, and of thought, and passion. In all ages, but especially since Dr. Hartley wrote, philosophers have been prone to these theories, and employed themselves in fanciful comparisons of the phenomena of mind and matter; so far as even to conceive that they had reduced all the phenomena of mind to corpuscular motions. The very use of the term association, and the opinion which it seems to involve of the necessity of some connecting process prior to suggestion are, doubtless, calculated by the many material analogies which they present, to lead the mind to adopt that general materialism, which converts perception and passion, and the remembrance of these, into states of sensorial particles, by so much more easily produced, by how much more frequently they were produced before, as a tree bends most readily in the direction in which it has most frequently yielded to the storm. Had the attention been fixed less on the suggestions of grosser contiguity, and more on those of analogy, contrast, or on those which arise from the perception of an object seen for the first time—the analogy of all the increased flexibilities of matter would have been less apt to occur, and the readers of those romances which call themselves systems of intellectual philosophy, would have viewed with astonishment the hypothesis of sensorial motions, and currents of animal spirits, and furrows in the brain, and vibrations and vibratiuncles, which false views of the *mere time* of association, in a connecting process of some sort prior to suggestion, have made them in many cases too ready to embrace.

The work of Dr. Hartley displays considerable acuteness; and some successful analysis of complex feelings which it contains may have had a beneficial influence in promoting a spirit of inquiry. But any advantage which has flowed from it in this way must have been inconsiderable compared with the evil which has flowed from it in another way, by leading the enquirer to acquiesce in remote analogies, and to adopt explanations and arrangements of the phenomena of mind, not as they agree with the *actual phenomena*, but as they chance to agree with some *supposed phenomena* of our material part. Though Hartley was not a materialist,—though he does not say that the vibrations and vibratiuncles of the medullary parts of the sensorium *actually constitute* the very sensations and passions, but merely that they are changes necessary to every mental affection,—yet, by adopting a supposed analogy of a particular species of motion (vibration), as common to all the intellectual functions, and thus imposing a necessity of finding, or attempting to find, in every case some exact correspondence of the mental phenomena with the varieties and combinations of vibratory motion, he has done as much to distract the attention of the philosophical inquirer as if he had made all the phenomena to consist of this motion, and has produced in his followers a belief in materialism as effectually as if he himself had believed the soul to be a cube, or a cone, or some irregular solid of many sides.

Even though we were to suppose, and we have no reason for supposing it, that a change of the material organs was necessary for every feeling and affection of the mind, and not alone for our sensations, and a few other susceptibilities, as the mere occasions on which those feelings arise; still we must reject the hypothesis of vibrations as being inconsistent with the *marrowy nature of the brain.* If we wished to have a substance that should damp and deaden every species of vibration, so as to prevent a single vibration from being accurately transmitted, none could be found better suited for the purpose than that soft pulpy matter. How strange, then, that Hartley, a physician, acquainted with the nature of the brain, could have imagined it suited to transmit with most exact fidelity, all the nicest divisions of infinitesimal vibratiuncles!

But suppose the sensorium were the very opposite of what it is—were finely elastic, and composed of chords adapted to the nicest differences of vibrations, and suppose varieties in the mere times of vibrations of the same strings, varieties of strength or velocity of their vibrations, were sufficient for explaining all the infinite diversities of sensation, still the theory of vibrations would fail in explaining even that very class of phenomena on which Hartley founds his system—association. Two elastic chords *which do harmonize* may, by accidental simultaneous impulse, have been made to vibrate together, and though this accidental concurrence may have happened a thousand times, yet, after all, if you strike one of the chords alone, the other will not vibrate; while of two ideas that have been frequently together in the mind, if afterwards *either* be excited alone, it suggests the other. Here we see there is no correspondence between vibrations and associations of ideas. And, on the other hand, if two chords that had never been struck together, exactly harmonized, and one of them should be struck for the first time and struck alone, the other, which never at any time was struck, would vibrate with it; but not so in ideas, the fragrance of a flower of a species which I have never seen cannot possibly suggest its figure or colour. Here again we see the very reverse of correspondence between the phenomena of vibrations and association of ideas.

If it be said that we are taking *vibration* in too literal a sense, we may answer, that Hartley gives no other meaning, and we must therefore take it with this meaning or with none.

Knowing what we know then of musical chords, it is impossible to bring their phenomena to bear on the phenomena of association, unless by convincing us, that, little as we know positively of the mysterious principle of suggestion, we may, at least negatively, have perfect knowledge that it is not a vibration or a vibratiuncle.

LECTURE XLIV.

In the tendency of our ideas to mutual suggestion, there is not a single perception, or thought, or emotion of man, and consequently not an object around him capable of acting on his senses, that may not influence the whole future character of his mind by modifying for ever after, in some greater or less degree, those complex feelings of good and evil by which his passions are excited or animated, and those complex opinions of another sort, which his understanding may rashly form from partial views of the moment, or adopt as rashly from others without examination. Thus association exercises a most powerful, though often unsuspected, influence over our character, moral and intellectual. To reduce to classes the sources of our various prejudices has been attempted by Lord Bacon, who quaintly characterises them as idols of the tribe, of the cave, of the forum, and of the theatre—idola tribûs, idola specûs, idola fori, and idola theatri; but since every event that befals us may add to the circumstances which accidentally accompany it some permanent impression of pleasure or pain, of satisfaction or disgust, we must not forget that the enumeration of the prejudices, even of a single individual, must, if accurate, comprehend the whole history of his life. Truth itself is relatively to all mankind in infancy, and to the greater number of them through life—a prejudice into which they are seduced by affection or example, precisely in the same way as on so many other occasions they are seduced into error. In the choice of a profession, in the tendency to some peculiar study, the influence of some accidental impression from external things is often all-powerful; and those associations which are transmitted to us from other minds are not less so, we continue to think and feel, as our ancestors thought and felt; so true it is that men make up their principles by inheritance, and defend them as they would their estates, because they are born heirs to them. It has been justly said, that it is difficult to regard that as an evil which has been long done, and that there are many great and excellent things which we never think of doing, merely because no one has done them before us. This subjection of the soul to former usage is like the *inertia* of matter that retains bodies in the state in which they happen to be, till some foreign force operate to suspend their motion or rest; and it is well, upon the whole, that in the great concerns of life, which relate not to speculative science, but to the direct happiness of nations, this intellectual inertia subsists. The difficulty of moving the multitude, though often the cause of preventing benefits which they might receive, still has the advantage of allowing time for reflection, before their force, which is equally irresistible for their self-destruction as for their preservation, could be turned to operate greatly to their own prejudice.

LECTURE XLV.

Having examined the nature and laws of simple suggestion, we now proceed to the other subdivision of our internal affections—to Relative Suggestion.

By this term, *Relative Suggestion*, we mean very nearly what is meant by the term *comparison*, except that comparison seems to include a *will* or *intention* of comparing objects, which is far from necessary to the suggestions of relation, as they often rise spontaneously—or, what is meant at least in the more important relations, by the term *judgment*, not using this term in its vague popular sense of the understanding, in general, nor yet in the confined logical-book sense, of the feeling of relation in a single proposition, but extending it to all the feelings of relation in the series of propositions which constitute reasoning, since these are only a series of feelings of the same class as that which is involved in every simple proposition. The phrase, *relative suggestion*, Brown uses as the simplest which it is possible to employ for expressing *without any theory*,* the mere undoubted fact of the rise of certain feelings of relation after certain other feelings which precede them.

As it is one original tendency or susceptibility of the mind, when external objects are present, and have produced a certain affection of our sensorial organ, to be instantly affected with the primary elementary feelings of perception; so another of them is, when we perceive *together* different objects, to be *instantly, without the intervention of any other mental process*, sensible of their relation in certain respects; and, as our sensations or perceptions are of various species, so there are various species of relations—the number of relations, even of external things, being almost infinite, while the number of perceptions is necessarily limited by that of the objects which have the power of producing some affection of our organs of sensation.

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* It is therefore the fittest phrase, as being least liable to erroneous conceptions.

Our relations may be classified as those of external objects, or those of the feelings of the mind; and both of these classes may be cross-divided into relations considered without reference to time as co-existing, or considered with reference to time as successive. This division corresponds to that of the objects of physical inquiry (see pages 18 and 47); and no wonder, since the results of all physical inquiry must consist in a knowledge of these relations.

Though we had a *perception* of all the objects in nature, and all the elements of every one of them, and could *remember* them individually, yet if, with all this, we had not the faculty of perceiving their mutual relations, we should have no *science*, and our consciousness would as truly be limited to a single point, as our body would become, were it possible to fetter it to a single atom. We could not know the existence of our Creator, for it is by reasoning from effects to causes, that is to say, by the feeling of the relation of antecedence and consequence, that we discover his existence; we could not know the existence even of the universe itself, since it is by the consideration of certain *successions* only of our feelings (see page 125), that we believe things to be external and independent of our mind; we could not even in memory know the existence of our own mind as the subject of our various feelings, for this very knowledge implies the relation of our transient feelings to one permanent subject.

We proceed to consider the first of our classes of relations, those of which the subjects are regarded without reference to time. To this order of real coexistence as in matter, or of seeming virtual (see page 48) coexistence, as in the complex phenomena of the mind, belong the relations of Position, Resemblance or Difference, Proportion, Degree, Comprehension.

Some of these might, by refined analysis, be made to coincide, e. g. Proportion and Degree might be made to find a place under Comprehension; but this could not be done without an effort, and an effort, in some cases, of very subtile reasoning; the present division is therefore preferable, being sufficiently distinct for every purpose of arrangement.

I look at a number of men; I remark one, I observe who is next to him, who second, who is on the little eminence above the rest, who in the plain, that is to say, my mind exists in the states which constitute the various feelings of the relation of *position*.

I see two flowers of the same tints; two crags of corresponding outline; a picture, and think of the well-known face it represents. In each of these cases, if the relative suggestion take place, my mind, after existing in the state, which constitutes the perception or remembrance of two similar objects, exists immediately in that state which constitutes the feeling of *Resemblance*.

I think of the vertical angles of two intersecting straight lines; of the pairs of numbers, four to sixteen, and five to twenty; my mind exists immediately after in the state which constitutes the feeling of *proportion*.

I hear one voice, then a voice which is louder; my mind directly forms a spontaneous comparison, and exists in that state which constitutes the feeling of *degree*.

I think of a house and its different apartments; of a horse and his limbs; my mind, after thus existing in the states that constituted the simple perception of these objects, begins immediately after to exist in that different state which constitutes the feeling of the relation of parts to one *comprehensive* whole.

Nothing more is necessary to the rise of the feeling of relative suggestion than the simple previous perception or conception, between the objects of which the relation is felt to exist. When I look at two flowers, it is not necessary that I should have formed any intentional comparison; the similitude strikes me before any desire of discovering resemblance can have arisen, and even where I intentionally trace the resemblance of particular objects, the very desire presupposes in the mind a capacity of relative suggestion of which it avails itself; just as the intention, e. g. of climbing a hill implies the power of muscular motion.

The susceptibility of feeling relation, in considering objects together, is as easy to be conceived in the mind, as its primary susceptibility of sensation, when these objects were originally perceived, whether separately or together; but so much mystery has been supposed to hang over it, and the art of logic has rendered so obscure, what would have been very clear but for the labour employed in striving to make it clearer, that it will be necessary to dwell a little longer on some of those separate tribes of relations. The first species which we shall consider, is that of resemblance.

To our feelings of the relation of resemblance, we are indebted for all classification, and consequently for general terms, that is, for every thing that is valuable in language, objects are classed together under general names in consequence of a similarity of some sort, no such classes could be formed if the mind in addition to its primary powers of external sense had not possessed also that secondary power by which it invests with certain relations the objects which it perceives. In consequence of that primary power of external sense, we *perceive* a horse and *perceive* a sheep, but were not the mind possessed also of the secondary power of relative suggestion, the perception of the sheep succeeding that of the horse, could not suggest that notion of their resemblance which leads us to form the general term qradruped or animal. For the relation is no part of the objects which we perceive and class as relative and correlative, each of the objects would be the same in every quality which it possesses, and every feeling which it directly excites, though the others with which it may be classed had no existence, the relation is derived from the laws of the mind which consider the objects, not from the laws or direct qualities of the objects considered. But for the power of perceiving similarity, all objects would have been to us things singular, and all language the mere expression of individual existence; such language would have been of little use in any respect, and of no aid to memory, which it would rather oppress than relieve. It is the use of general terms, that is to say, of terms founded on the feeling of resemblance, which gives language its power.

Without general terms, man could reason,* but his reasonings would be very imperfect, and the knowledge derived from such reasoning *vague and incommunicable*. *Vague*, because the art of definition being merely the act of fixing in a single word or phrase, the particular circumstances of agreement of various individual objects, which we have chosen to class together in consequence of this feeling of relation—gives us certain fixed points of reference both for ourselves and others, without which it would be impossible for us to know what progress we have made, and impossible to remember accurately the results of our reasoning, and to apply them with success to future analysis.

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* That he could reason without language, and consequently without general terms, is shewn by the very invention of the language which involves these general terms—by the conduct of the uninstructed deaf and dumb—by the evident marks of reasoning in other animals.

Incommunicable, since general terms form almost the whole of language; out of all the parts of speech, as Dr. Reid remarks, there is but one (the noun) which does not consist exclusively of general terms. In all the fifteen books of Euclid's Elements there is not one word that is not general.

But if our reasonings would be so imperfect without the use of general terms, how deplorable would be our situation if we were incapable of the general notions themselves.

This will appear if we consider, that the whole conduct of life is a perpetual practical application of the intuitive maxim, that similar antecedents will be followed by similar consequents, which implies the necessity, in every case, of some rude classification of objects as similar. The burnt child dreads fire, yet the fire which he sees to-day is not the fire which burnt him yesterday. It is in consequence of notions of little genera and species of good and evil, which he has formed mentally long before he distinguishes them by their appropriate general terms, that the infant is enabled to avoid what would be hurtful, and thus to prolong his existence.

The process of generalization is quite a simple one as we shall see immediately, and yet strange to say, on this process has been founded all that controversy as to predicables and the essence of universals which so long distracted the schools, and, what is still more strange, which still continues to perplex philosophers.

We *perceive* a horse, a sheep, and a goat; these animals have certain qualities in which they *resemble* each other, e. g. in having four legs each, and we are capable of *feeling this resemblance,* and we naturally avail ourselves of *language* as a mode of communicating to other persons our feeling of the resemblance, and we distinguish all the animals agreeing in this respect by the name of 'quadrupeds.'

Now what the general term expresses, evidently is our own internal *feeling of resemblance* between the objects, and nothing more—a feeling that is in us, and dependent wholly on laws of mind, and it does not express any thing in the object, or any thing directly dependent in any degree on laws of matter. Now that this is true appears from reflecting that the horse, &c. as an individual, has precisely the same qualities, whether the others, the sheep, &c. be or be not considered by us at the same time; and so in the next stage of the process of verbal generalization, when in consequence of this feeling of relation in our own minds we proceed to term them quadrupeds, no quality has been taken from the objects which we have ranged together under this new term, and as little has any new quality been given to them.

The whole process then of generalization is as follows:—*First*—the perception of two or more objects.

Second—the feeling or notion of their resemblance immediately subsequent to the perception; and *thirdly* and *lastly*, the expression of this common feeling by a name, which is used afterwards as a general denomination for all those objects, the perception of which is followed by the same common feeling of resemblance. The general term expressing a felt *relation* is essentially distinct from those states of mind which constituted the perceptions of the separate objects. The feeling of this relation of resemblance, in some point or other, is the true general notion which the general term expresses, and but for this previous general notion of some circumstance of resemblance, the general term expressive of this general notion could as little have been invented, as the terms, green, scarlet, could in their present sense by a nation of the blind.

In the view taken of this process of generalization, as of every other process, there may be error in two ways—either by adding to the process something that forms no part of it, or by omitting what does. The former—Redundancy, is the error of the Realists; the latter—Deficiency, that of the Nominalists. The Realists assert that between the first and second parts of the process, the perception, e.g. of a horse and sheep, and the feeling of their resemblance in a certain respect, there intervenes the presence of an *external independent substance* (which they call the *universal form or species* of a quadruped) distinct from the conceiving *mind*, the presence of which acting on the *mind* produces the notion of a quadruped in the same way as the presence of the external horse or sheep produces the perception of these individually.

This belief of the substantial reality of genera and species as separate and independent essences, is now entirely exploded; yet, absurd as it may seem, and quite inconsistent with our simpler theory of perception, it harmonized readily with the doctrine of perception by species, with which a juster view of the generalizing process would have been absolutely discordant.

They who conceived ideas in perception to be things distinct from the mind, e. g. the idea of a particular horse to be something different both from the horse itself and the mind which perceived it, conceived also, and naturally enough, that in forming the notion of horses in general, of quadrupeds, or animals, there must have been present in like manner some species distinct from the mind, not particular like the sensible species, but universal; such was the ancient doctrine as to universals, which with various modifications was transmitted from the Pythagorean school to Plato and Aristotle, and in the later ages to the schoolmen, his followers—the doctrine of universality, *a parte rei* as it was called.

The sect of the Nominalists, the great opponents of the Realists, in a controversy, which, to use the strong language of John of Salisbury, had, even as early as his day, consumed more time and thought, than the whole race of Cæsars found necessary for acquiring and exercising the sovereignty of the world, owed its origin, as a sect, to Roscelinus, a Breton of the 11th century, though some hints of a similar opinion may be traced in some of the ancient philosophers, particularly of the Stoic school. Roscelinus was an eminent logician, so was his pupil the celebrated Abelard, and by their attacks on universals, a parte rei, they created a powerful division in the schools, but being both convicted of heresy in theological points, their logical doctrine, which was looked upon as no better than another heresy, sunk into disrepute. In the fourteenth century, the authority of the acute William Occam, an Englishman, revived Nominalism, and the dispute between both sides raged with more rancour than ever, emperors and kings bringing the weight of arms to aid the war of words. There was indeed one point on which both sects agreed, that of equal devotion in charging their opponents with no less a sin than the sin against the Holy Ghost.

At the Reformation, the fury of the controversy was suspended by more important interests, and perhaps by wider views, which then began to open in literature and general science. It has since become a question of pure philosophy, and the general opinion has leant to Nominalism. In our own country, Hobbes, Berkley, Hume, Campbell, and Stewart, are strict Nominalists. The only great names opposed to Nominalism, being Locke and Reid, who are Conceptualists, that is, they held the same doctrine as Dr. Brown has explained in this Lecture.

The doctrine of the Conceptualists, 'conceptuales,' y be traced far back in the dispute about universals.

Many of the philosophers who agreed with the strict Nominalists in rejecting the notion of universal essences, and who for that agreement were confounded with the others, under the general name of Nominalists, actually differed from these as much as they did from the Realists. Brown thinks that it is only in consequence of being thus confounded with conceptualism, and presenting therefore some vague notions of more than mere general terms, and particular perceptions, that the doctrine of Nominalism has obtained the sanction of its illustrious modern defenders, whom he is inclined to consider as unconsciously, in thought, Conceptualists, while they are Nominalists in argument and language.

Out of the process of generalization, detailed above, the Nominalists omit altogether the second part; they say there is no such thing as *general notions*, nothing in the process but *individual objects perceived*, and *general terms* that comprehend these, without any peculiar mental state denoted by the general term, other than the separate sensations or perceptions, which the particular objects comprehended under the term might individually excite.

The very statement of this doctrine seems almost a sufficient confutation, since the very invention of a general term and its extension to certain objects only, and not to all objects, implies *some reason for the limitation*, some feeling of general agreement of the objects included in the class, to distinguish them from the objects not included in it, which is itself that very particular squares or triangles conceived by us in our demonstration. Berkley endeavours to answer this objection. In demonstrating that the three angles of a triangle are equal to two right angles, 'though the idea I have in view,' he says, 'be that of an isosceles rectangular triangle of a determinate length, I may nevertheless be certain it extends to all other rectilinear triangles, of what sort or bigness soever, because neither the right angle, nor the equality nor determinate length of the sides are at all concerned in the demonstration. It is not said that the three angles are equal to two right ones, because one of them is a right angle, or because the sides comprehending it are of the same length, which sufficiently shews that the right angle might have been oblique and the sides unequal, and for all that, the demonstration have held good.'

To this answer Brown replies, that it takes for granted the very thing it was meant to confute; it supposes us to have, during the demonstration, *a general idea* of triangles without particular reference to the diagram before us. Though it is not said 'that the three angles are equal to two right angles, because one of them is a right angle, or because the containing sides are of equal length,' yet it is proved that the three angles of the triangle which has one angle right, and the sides about it equal, are equal to two right angles, and this being only a particular demonstration, is only applicable to triangles of a particular form, which excite like perceptions; for unless we admit the existence of general ideas, an isosceles right angled differs as much from a scalene triangle as it does from a square; to say that the two triangles agree in having three sides and three angles, is to say there are general ideas of *sides* and *angles*; for if they be particularized, and if by the words *sides* and *angles* be meant the particular equal sides and angles of the isosceles diagram before us, it is evident that the two triangles do not agree in the slightest circumstance. If then we can only enunciate, but not conceive, a general proposition, we can never be certain that the three angles of every triangle are equal to two right angles, until it has been demonstrated of triangles of every variety of figure; and before this can be done, we must have it in our power to limit space, and chain down imagination.'

Another Nominalist, Dr. Campbell, says, 'The mind, with the utmost facility, extends or contracts the representative power of the sign as the particular occasion requires. Thus the same equilateral triangle will with equal propriety serve for the demonstration not only of a property of all equilateral triangles, but of a property of all isosceles triangles, or even of a property of all triangles whatever.' The same diagram does serve, but not from any extending or contracting of the power of the sign, but because we had a *general notion* of the nature of triangles.

If the doctrine of the Nominalists were nearer the truth, we should discover the error much more readily. It is a strange paradox, but true, that it is because this doctrine is so very contrary to our feelings that we do not discover it to be so. The error escapes us because our general terms convey so immediately to our mind that common relation which they denote, that we supply of ourselves what is wanting in the process as described by the Nominalist. We know what he means when he speaks of particular terms or ideas that become more generally significant by standing for ideas of the *same sort*, and we therefore make for him, by the natural spontaneous suggestions of our minds, the extension and limitation which would be impossible on his own system. But for such an illusion we cannot imagine how so many great names should be found among the defenders of an opinion which makes reason nothing more than a mere play upon words, or, at best, reduces very nearly to the same level the profoundest ratiocinations of philosophy and the technical labours of the grammarian or lexicographer.

The system of the Nominalists, then, though simpler, is not more true than that of the Realists; it is so far true, as it rejects the existence of any universal form or species distinct from our mere feeling of general resemblance, but it is false as it rejects the general relative feeling itself.

LECTURE XLVII.

It is not the general name which produces the feeling of resemblance* among the objects to which it is applied, any more than it is the name of the individual, John or William, which produces the existence of John or William, but it is the feeling of resemblance which leads to the invention or application of the name. So far is the general term from being essential to the rise of the feeling of resemblance, that it is only for a very small number of general relative feelings that we have invented general names. There are scarcely two objects at which we can look without perceiving some sort of resemblance. But the convenience of social life does not require us to have general names expressive of any but the most important general resemblances, and accordingly we have them not. Now feelings which arise as much when a name is not given as when it is, cannot depend on names which in most cases do not exist, and when they do, exist only after the very feelings which they were invented to express.

If our mind be capable of feeling resemblance, it must be capable of general notions, which are nothing more than varieties of this feeling, for we cannot perceive objects to resemble each other without perceiving them to resemble in certain respects rather than in others, and the notion of the respects in which they resemble, is what is meant by the general relative feeling. Thus when I hear the term man, the general circumstances in which all individual men agree, occur to my mind, perhaps vaguely and indistinctly, but probably as distinctly as the conception of the individual John or William, which recurs when I hear one of those names.

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* If it were the name which formed the class, John and a triangle might as well be classed together as John and William. Why is the latter arrangement more philosophic than the former? Because something more is felt to be necessary in classification than the mere giving general names at random.

And indeed the exact meaning of our general terms is *much more* distinctly conceived by us than that of our particular terms; thus we have a more distinct notion of rectilineal angles in general than we have of an angle of sixty-five degrees; for the general term, in proportion as it is more general, involves the consideration of fewer particulars, and is therefore less confused, while the particular term must involve all the particulars included in the general term, and others, besides, that distinguish the species or individual, and that are difficult to be distinguished from each other in consequence of the faintness of the limits in which they shadow into each other. Hence the sciences which are most strictly demonstrative, are not those that relate to particular objects, but those of quantity, in which every notion and term is general.

Some errors which the Conceptualists have committed in analysis of the general feeling, and some consequent improprieties in arrangement and expreson, justify, perhaps, in part, the ridicule which the

Nominalists cast on their system. To point out these improprieties may furnish some explanation of the error of New Nominalism.

The use of the word *idea* to express the general feeling of resemblance, was unfortunate, from its etymology, and common application to the conceptions of external objects; it seems almost in itself to imply something which can be *individualized* and *offered to the senses*; thus the general *idea* of an angle seems to be something which we can represent in a diagram, but what we can thus image in a diagram must evidently be particular; so that if we ascribe to it properties of more than one particular angle, our reference must on this very account involve inconsistencies; what can be more absurd than the general idea of an angle which is neither right nor acute nor obtuse, and yet all three at the same time!*

The term *conception* also seems to individualize its object, and as it is commonly employed to signify some fainter revival of a past feeling, it has led to mistaken views of our general notions, which include no fainter transcript of the past. These inconsistencies might have been avoided, and the tendency to individual misrepresentation obviated, by using the phrase '*general notion*' instead of '*general ideas*,' or '*general conceptions*.' Brown would call the persons who hold opinions like his own, not Conceptualists, but Relationists, or Notionists. The feeling of the relation of similarity being no part of the perception or *conception* of the separate objects which suggest it, but a feeling of a different species absolutely new,—a relation and nothing more, and the general term being expressive not of any thing that can be strictly termed a *conception*, but of *that multitude* of objects which, however different in other respects, agree in exciting one common feeling—the relation of a certain similarity.

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* These inconsistencies arise from the attempt to form an *individual* representation of what is in itself general, and therefore by its very nature incapable of being individually represented.

But what chiefly tended to produce a denial of the general notion, was the *improper use of the indefinite article*; a striking lesson how much the progress of philosophy may be retarded by even the slightest inaccuracy of language. Instead of the general notion of triangles, or of the nature and properties of triangles, or of the circumstances of agreement of triangles, the Conceptualists were accustomed to talk of the general idea of *a* triangle, which seemed to imply an *idea* of an object uniting at once all the qualities of the individual objects, and yet excluding every quality which distinguishes each from each. It is needless to say, that the Conceptualists did not believe in the existence of any such idea; such belief would be a species of realism still more absurd than the old scholastic universal *a parte rei*; they only expressed themselves improperly. And the absurdity of their expressions does not render it less absurd in the Nominalists to deny that we have any general notion or relative feeling whatever of the circumstances in which triangles agree—

that general notion which preceded the invention of the general term *triangle*, and without which the general term would be absolutely incapable of being limited to one set of objects rather than to another. Yet all the valuable remarks of Locke on general notions, have been neglected or forgotten, while one passage has been remembered, and often quoted, because nothing is so well remembered, as the ridiculous. 'Does it not require,' says Locke, 'some pains and skill to form the general idea of *a* triangle; for it must be neither oblique nor rectangle, neither equilateral, equicrural, nor scalenon, but all or none of these at once. In effect, it is something imperfect that cannot exist, an idea wherein some parts of several different and inconsistent ideas are put together.' It is evident from Locke's whole reasoning, that what he meant was, that all triangles, whether equilateral, equicrural, or scalene, are felt by us to agree in certain respects; and felt, not because we have previously classed them together under one name, but that we have so classed them because we previously felt their resemblance; that the general notion therefore cannot have depended for its origin on the name which follows it, and that it is this general notion of resemblance which the term signifies; the term being considered by us as fairly applicable to every object, which excites the same relative feeling.

It is hence the very nature of our general notion not to be particular, for who can paint or particularize a mere relation? To require that our mental notion of the common properties of triangles, equilateral, equicrural, and scalene, should itself be a triangle, would not be more philosophic than to require a visual delineation of a sound or a smell, and to deny their existence because we cannot paint them to the eye.

As it is only for a small number of resemblances perceived by us in objects, that we have *invented general names*, the general term therefore is not essential to the generalization, but only records a generalization previously made. It marks what we have felt, and enables us to refer with exactness to this past feeling.

In speaking of the *invention* of general terms, we speak of what we do in the present mature state of our language. But in the early generalization of savage life, it is likely that no general terms were invented, but that words, used originally as proper* names of individual objects, were extended to similar objects, just as we might imagine that an Englishman, if he could be so ignorant as not to know the word *river*, but only to be acquainted with the particular word Thames, and if he were brought to any other river, would call it a Thames. This theory of appellatives is hinted by some earlier writers, but has been more particularly maintained by Condillac and Adam Smith. The latter remarks that this antonomasia, or

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* The assignation of particular names to denote particular objects, that is, the institution of nouns-substantive, would probably be one of the first steps towards the formation of language· *Smith, Considerations concerning first formation of Languages*.

"application of the name of an individual to a great multitude of objects *whose resemblance* naturally recalls the idea of that individual and of the name which expresses it, seems originally to have given occasion to the formation of genera and species." (Smith).

Since all reasoning implies some generalization, the Nominalist, who allows nothing general but terms, is forced to deny the possibility of reasoning of any kind without the aid of general terms; a denial utterly inconsistent with facts, for what language does an infant require to prevent him from putting his finger twice in the flame of that candle which has burned him once. To suppose we cannot reason without language, involves the same inconsistency as to say that man is incapable of moving his limbs till he have previously walked a mile.

The use of general terms is not to enable man to reason, but to enable him to reason well. They fix the steps of our progress. They give us the power of availing ourselves with confidence of our own past reasonings and of the reasonings of others, and though they do not absolutely prevent us from wandering, they prevent us from wandering far, and are marks of direction to which we can return; without language we could reason sufficiently to protect ourselves from obvious and familiar causes of injury, but our reasonings would be very limited.

Captain Cook relates an instance of erroneous classification into which the people of Wateeoo were led by the very limited extent of their language. The inhabitants were afraid to come near the Captain's cows and horses, nor did they form the least conception of their nature, but the sheep and goats did not surpass the limits of their ideas, and they gave him to understand that they knew them to be birds. Cook accounts judiciously for the mistake. They 'seemed to know nothing of the existence of any other land animals besides hogs, dogs, and birds; the sheep and goats they could see were very different creatures from the two first, and therefore they inferred that they must belong to the latter class in which they knew that there is a considerable variety of species.' Dugald Stewart, who quotes this passage, remarks that the mistake of these islanders arose not from considering a sheep or goat to bear a more striking resemblance to a bird than to dogs and hogs, but from the want of a generic name, such as quadruped, comprehending those two species; which men in their situation would be no more led to form, than a person who had seen only one individual of each species, would think of an appellative to express both, instead of applying to each a proper name. In consequence of the variety of birds, it appears that they had a generic name comprehending all of them, to which it was not unnatural for them to refer any new animal they met with.

Of the existence of general notions, this very instance affords striking evidence. Why did they class the goats and sheep with birds, and not equally class the cows and horses? because the goats and sheep coincided more exactly with the *previous general* *notion* of birds than did the others. The winged tribes with which they were acquainted had no resemblance *in stature* to the cows or horses, but approached perhaps in some degree to that of the smaller quadrupeds. A bird they considered to be a living thing of various sizes familiar to them, and neither a dog nor a hog. A sheep or a goat they saw was a living thing, not a dog nor a hog, and of a size that implied no remarkable opposition to that involved in their silent mental definition of a bird.

LECTURE XLVIII.

The subject of our last lectures (generalization) is one that has engaged, in an eminent degree, the attention of philosophers, both from the difficulty which was supposed to attend it, and from the extensive applications which were to be made of it as the groundwork of every proposition, and consequently of all our knowledge. The difficulty was altogether owing to the darkness of insignificant terms and phrases, with which it was enveloped in the controversy about universals.

The brief expression of the feeling of *resemblance* is a general term, but when *all which we feel* in our relative suggestions, either of resemblance or in any other of our relative suggestions, is enunciated in language, it is termed a proposition: a proposition, then, notwithstanding the air of mystery which invests it in our books of Logic, is the expression of this common feeling of relation; e. g. '*animal*' is a general term expressive of a particular feeling of the relation of resemblance; '*a horse is an animal*' is a proposition; which is merely an expression of this felt resemblance of a horse to various other creatures included by us in the general term.

Propositions, of course, may be as various as are the species of relative suggestions of which our minds are susceptible; but by a little effort of subtilty, all the five classes may be reduced to the class of comprehension (see page 252); for every affirmative proposition predicates about its subject some quality or attribute which may be said to form a part of the very essence of the subject itself, or at least of our complex notion of the subject. The one quality of which we speak is comprehended with other qualities in that general aggregate to which we state it to belong; e. g. when we say 'snow is white,' or 'the wisest of mankind is fallible,' do we not merely state one of the many qualities *comprehended* in that totality of qualities which constitutes the subject as known to us? If we do not divide a mass into integral parts, we divide a complex notion into its parts, or at least separate from that complexity a quality which we feel to belong, and state to belong to the complex notion from which we have detached it. It is, as it were, a little analysis and synthesis. I first decompose—and then in expressing verbally to others this mental decomposition, I combine again the separated elements of my thought,—not indeed in the same manner as the chemist, for the analytic process is as different as matter is from mind,—but with the same feeling of agreement or identity which rises in the chemist's mind, when he has recomposed into one mass the very elements into which, by his art, that mass had been previously transmuted.

What then is REASONING? Being nothing more than a series of propositions,* it is merely a series of analytic operations of this kind developing the elements of our thought. The statements of one particular relation are simple propositions, in each of which a certain analysis is involved. But when we *reason*, or add proposition to proposition in a certain series, we merely prosecute our analysis, and prosecute it more or less minutely according to the length of the ratiocination; when I say 'man is fallible,' I state a quality *involved* in the nature of man; when I add, 'he may therefore err, even when he thinks himself least exposed to error,' I state *what is involved* in the notion of his fallibility; and so on through the series, man is fallible; he may therefore err when he thinks himself least exposed to error; he therefore must not expect that all men will think as he does even on points which appear to him to have no obscurity; he therefore should not dare to punish those who merely differ from him, and who may be right in differing from him; therefore every particular legislative act of intolerance is as unjust as it is absurd.

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* The propositions in Reasoning are consecutive in a certain order—the nature of this order will be considered in the next lecture.

In all this reasoning, though composed of many propositions, there is only a progessive analysis with a feeling at each step of the relation of parts to the whole, the predicate of each proposition being the subject of a new analysis in the proposition which is to follow it,* till we arrive at the last proposition which is immediately extended backwards to the primary subject of analysis, (man) as involved in that which is itself involved in that primary complex conception or aggregate of many qualities. There are minds perhaps, which by considering *man*, and *opinion*, and *punishment*, would discover without any intervening proposition, that fallible man ought not to set himself up in judgment as a punisher of the speculative errors of fallible man. There are others perhaps who might not perceive the conclusion without the whole series of propositions enumerated, *though the conclusion is involved as an element in the first proposition*, man is fallible, and according as the particular intellect is more or less acute, more or fewer of the intervening propositions will be necessary.

In every such case of continued intellectual analysis, it is impossible for us not to feel when we have arrived at the conclusion, that the last proposition is contained in the first, though it is not seen by us till exhibited, as it were, in its elementary state by the repetition of analysis after analysis. It is in this respect, like the decompositions of chemical analysis, which are constantly shewing us something new in the very substances which are every moment before our eyes: thus the atmosphere, which was long considered a simple element, was afterwards shown by chemists to be composed of different gaseous fluids.

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* This process, therefore, is what Logicians call the Sorites.

In the truths of reasoning, which a profound and penetrating genius is able in like manner to exhibit to us, we perceive a similar analysis, which presents to us, as it were, the elements of our former conceptions; since the very reasoning, if it be at all intelligible, must begin with some conception already familiar to us, in which it asserts something to be contained, and proceeds only by tracing similar relations. A new truth of this kind, i. e. discovered by reasoning, is not so much added to us as evolved from the primary truths already familiar. The truths at which we arrive by repeated intellectual analysis, may be said to resemble the premature plant which is to be found inclosed in that which is itself inclosed in the bulb or seed which we dissect; we must carry on our dissection more and more minutely, to arrive at each new germ; and even when our dissection is obliged to stop, we have reason to suppose that finer instruments and finer eyes might prosecute the discovery almost to infinity. So in the discovery of the truths of reasoning, the stage at which one inquirer stops is not the limit of analysis in reference to the object, but the limit of the analytic power of the individual. Inquirer after inquirer discovers truths which were involved in truths formerly admitted by us, without our being able to perceive what was comprehended in our admission. Thus perhaps whole sciences may be comprehended in propositions that now seem too simple to admit further analysis. Of the possibility of this the mathematical sciences furnish a striking example, the rudest peasant having in his mind nearly all those primary notions of which the sublimest demonstrations of geometry or arithmetic are only the development.

The evolutions of thought in our processes of reasoning, though thus resembling the evolutions of organic germs, have this noble distinction, that if their progress be unobstructed, the progress itself is constant improvement, the thought which rises being not a mere copy of the thought from which it rose, but a truth before unknown and unsuspected that may be added to the increasing stores of human wisdom.

But if the profoundest reasonings be nothing more than a continued analysis of our thought, stating at every step what is contained in conceptions that previously existed as complex feelings of our mind, whence does it happen that we can form opinions which involve important truths long afterwards detected in them, without having at the time the slightest suspicion that any such truths were contained in the general notions and general phraseology which we formed? The reason of this appears by attending to the nature and order of the process of generalization,

results of which are the subjects of this consecutive analysis. If we had advanced in regular progress from the less to the more general, from individuals to species, from species to genera, &c., since we should have known previously the minute, specific circumstances, involved in the higher orders and classes to which we had gradually ascended, then it might have been absurd to suppose that these specific circumstances, previously known, could be discovered to us by analysis. But in the actual process of generalizing we do not advance in this regular progress, but form classes and orders before we distinguish the minuter varieties. Some resemblance of a multitude of objects strikes us, and we class them together—afterwards we attend to the differences which distinguish those objects, and separate them, according to those differences, into genera and species. Hence a number of those objects felt to have one resemblance may have many other resemblances which we never suspect—and the very circumstance of agreement which we perceive at the time when we class these objects together as being related one to another, may involve or comprehend certain circumstances to which we then paid no attention, and which occur to us only in the subsequent intellectual analysis of ratiocination. Just as we might know the situation of the great cities of Europe, Paris, London, &c. and know that a certain space must intervene betwen them, and yet not know what that space contains; the topographical inquiry which slowly fills up the intervals of our map, placing here a forest, there a mountain, &c.,

is like the process of reasoning in the discoveries which that process affords.

The reasoning which proceeds from the complex to the less complex, detecting in each state some unsuspected element of our thought, may be termed strictly *analytic reasoning*. But it is exactly the same relation which is felt in reasonings that seem to proceed in an opposite way, exhibiting first the elements and then the whole which they compose. When we say five and eight added make thirteen, and when we say thirteen may be divided into five and eight, we equally express the relation of comprehension of parts to a whole; the difference between the synthetic and analytic reasoning, being merely in the order of the propositions, not in the nature of the feeling of relation involved in any one of the separate propositions.

Every species of reasoning, as it only involves qualities essential to the very nature of the subjects of the different propositions, is reducible to the class of analytic reasoning. Even in proportion, when I say four are to five as sixteen to twenty, I state a relation or property of the number four, which may be regarded as *comprehended* in my notion of that number; just as when I say that an alkaline solution, if mixed with oil, would convert it into soap, I state one of the qualities of that solution. This property of the number four could not have been discovered, ad I not considered along with four the other mbers, five, sixteen, and twenty; nevertheless, when is proportion is discovered, I cannot but consider it as one of the properties comprehended in my notion of the number four; and this proportion, like the chemical quality, may thus be strictly reduced to the class of the relations of comprehension.

But without insisting on so subtile a process, it may be easier, at least, though not more accurate, to distinguish reasonings of this kind from our more obvious analytic reasonings;—we may call them proportional reasonings, as we termed the single relative suggestions which they involve—relations of proportion.—Analytic reasonings, in the confined sense of the word analytic, and proportional, are the two most important of the five classes.

LECTURE XLIX.

Every reasoning is a series of propositions, but every series of propositions is not reasoning, however just may be the separate propositions. The half of eighteen is equal to the square of three—man is liable to error—marble is a carbonate of lime.—These propositions following each other lead to no conclusion different from those which each separately implies and expresses. To constitute reasoning, there must be some mutual relation of the subjects and predicates of the different propositions. The order in which the different propositions arrange themselves, so as to present to us this mutual relation of the successive subjects and predicates, is therefore of the utmost importance to our consecutive analysis in analytic, and to our consecutive measurements in proportional reasonings. On what does this order depend?

Take an example:—A is equal to D; we do not know it, but we know that A is equal to B, B is half C, and C is double D; if these three propositions follow each other in our mind in this order, it is impossible for us to doubt that A is equal to D; but if any one of the relations of the intermediate ideas be omitted; if, for instance, although we know the relation of B and C to D, yet B never occurs to us while A is in our thought; then the relation of A to D will not be felt; we shall have all the knowledge requisite for discovering that relation without the possibility of discovering it, unless our thoughts arrange themselves in a certain order. It is quite essential to our demonstration that B and C should arise at certain times; and they do arise at certain times. How does this happen?

According to the received opinion, we have a certain *sagacity* by which we find out the intervening propositions; and they are arranged in this order, *because we have discovered* them to be suitable for our measurement, *and put them in their proper place.* "Those intervening ideas which serve to shew the agreement of any two others," says Locke, "are called proofs." A quickness in the mind to find them, and to apply them rightly, is, I suppose, that which is called sagacity." Reason itself he defines to be "the faculty which finds out these means, and rightly applies them.'

Now that some minds are able to detect secret relations which are not perceived by others to whom the same intervening conceptions have not arisen, or have arisen without suggesting the same feeling of common relation, is undeniable, and it is a natural metaphor to say of these minds that they have a peculiar sagacity; but it is only a metaphor: and the question remains what that process truly is which the word sagacity is borrowed to denote—whether the intermediate conceptions that arise more readily in certain minds than in others, arise in consequence of any skill or voluntary efforts, or whether they do not arise in consequence of tendencies of mind more lasting than our momentary volitions, namely, in consequence of the laws of suggestion independent of our skill and efforts.

An argument which we have already used in reference to intellectual phenomena, in some degree analogous, decides the question (see page 230). The mind cannot will the conception of the intervening ideas, however essential they may be to our reasoning; since to will them—if we know what we will, which is surely essential to volition—implies the existence of the very conceptions which we are said to will, as states of the mind, present, and prior to the exercise of that sagacity which is said to produce them. They arise, then, in consequence of laws of mind that are independent of our volition. We do not find them out, as Locke says, but they come to us, and when they have arisen we do not apply them, as he says, because

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[*] That is, in consequence of the natural order of the course of suggestion.

we regard them as suitable; but the relation involved in them is felt without any intentional application, in consequence of their presence together in the mind. To talk of their skilful application involves an error of the same kind as the assertion of the volition* of the particular conceptions which are said to be thus applied, involves; it assumes the existence of the very relative feeling for the rise of which it professes to account; since, without this previous feeling, the comparative suitableness of one medium of proof rather than another could not be known.

The intervening conceptions, then, do not arise in consequence of any particular volitions, and yet they arise and not loosely, but in the very order that is necessary for developing the remote relation. The whole seeming mystery of this order depends on the *regularity of the laws which guide our simple suggestions* (see page 199). It is not wonderful that A should suggest B (for B is *related* to it), B suggest C—and C, D—all this might take place by simple suggestion, in consequence of the relation between the conceptions, though the relation itself was not felt, and consequently the proposition, or verbal statement of such relation not framed. But we are capable of feeling the relations. Therefore when, in consequence of the relation between A and B, A *suggests* B; in conse- our capability of relative suggestion, we feel on between those conceptions A and B, and e proposition, A is equal to B, &c., and our feelings of relation, and consequently our propositions correspond with the *regularity* of the conceptions which suggest them.

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* See page 230.

As the *sagacity* of which Locke and other writers speak, is only a form of our simple suggestion, it may be reduced to that peculiar tendency of the suggesting principle by which conceptions rise in minds of a higher order, according to the relation of *analogy*, and not as in common minds merely according to the relation of *contiguity* (see page 209). This tendency of conceptions in some minds to rise, according to the relation of analogy, gives inventive vigour to our reasoning. By continually presenting to us new objects, it presents new relations, and leads to new conclusions which duller minds of themselves could never have attained.

We can see now how there come to be differences of opinion among mankind. From the different tendencies of the suggestive principle, different conceptions will be suggested to the minds of different individuals, and therefore different relations perceived and consequently the relation which the conclusion involves will be different. Thus the different results of reasoning may be attributed to mere differences of simple suggestion, exciting *different conceptions*. But moreover, as there are in different minds different tendencies of simple suggestion, there are also in different minds peculiar tendencies to different relative suggestions from the same conceptions, the same two objects may have various relations, and suggest these variously to different minds. These peculiar tendencies may be called secondary laws of relative suggestion, like the secondary laws of simple suggestion (see page 207), they may be divided into constitutional, habitual, and temporary; like them, too, they lead to different results of reasoning, and are to be taken into account in our estimation of diversities of genius.

Thus though we cannot *directly* by volition produce *sagacity*, or a ready discovery of proofs, we can in some degree produce it indirectly from the influence which *education* has on the tendencies both of simple and relative suggestion. We can continually render ourselves acquainted with more objects, and thus increase the store of possible suggestions which may on occasion present to us new means of proof; and we can by the influence of certain habits so modify the general tendency of suggestion, that certain relations rather than others shall rise to the mind, or shall rise at least more rapidly and readily.

But though we cannot *will* the rise of any of the conceptions in the series A, B, C, D, nor *will* the feeling of its relation to any of the others, yet we can have a *general desire* of discovering the relation of A to D, and this is sufficient to account for the continuity of the reasoning. As long as the desire to explore the relations of any object (A) continues, the concep- of the object itself remains equally permanent ll, of course, suggest the conceptions of *objects* to it, and consequently *the relations* themselves sequent feelings of the mind; and in the multitude of relative objects thus capable of being suggested, it is not wonderful that there should be some one (B or C) which has a common relation to both A and D, and which therefore becomes a measure for comparing them, or suggests this very relation without any intentional comparison. Indeed, since A and D, both conceived together, form one complex feeling of the mind, it is natural that the objects related to both parts of the complex feeling should be most likely to be suggested.

Such is the series of the propositions which arise in our minds when we meditate on any subject, but the series which we submit in discourse or in written works to others, is different in this respect, that we have it in our power not to clothe in words the conceptions or relations that arise in our thought, and by mere omission of those parts of the internal series which we regard as feeble or irrelative to our principal object, the whole series of propositions, as expressed, may seem very different, and be far more forcible than that which really passed through our mind, and produced in us that conviction or persuasion which we wish to diffuse. Still it is the omission only which makes the difference, and not the direct willing of a single conception or relation in the whole series of *propositions* which we express in language.

It is undeniable that there is a *rational logic*, and that many useful directions, in conformity with a certain system of rules, may be given to the inexperienced student, that may facilitate, *to him*, acquisitions of knowledge. The art of reasoning, however, which a judicious logic affords, is not so much the art of acquiring knowledge as the art of communicating it to others, or recording it in the manner that may be most profitable for our own future advancement. Its direct benefit to ourselves is rather negative than positive, teaching us the sources of error in our mental constitution, and in the accidental circumstances of the language which we are obliged to use, and the society in which we must mingle, and thus rather saving from what is false than bestowing what is true. Indeed, since we cannot produce directly in our mind any one conception or any one feeling of relation, it is evident that *the influence of any art of reasoning on our trains of thought can only be indirect.*

LECTURE L.

With the syllogism as an instrument of acquiring knowledge, Dr. Brown finds great fault.

It retards, he says, the progress of reasoning without rendering it more sure.

Its theory implies an absurdity.*

It retards the progress of reasoning, compelling us to take a longer journey to the conclusion by the use of the *major proposition*—a proposition which, he says, can never rise spontaneously, because it cannot rise without our knowledge of the very truth which is by supposition unknown. Instead of using the enthymeme,* which is the natural process of reasoning,—instead of saying man is fallible,—he may therefore err, even when he thinks himself most secure from error,—the syllogism adds needlessly a major proposition; all fallible beings may err when they think themselves least liable to err.

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* See Note B at end of this compendium.

Its theory is absurd. It constantly assumes, as the first stage of that reasoning by which we are to arrive at a particular truth, our previous knowledge of that particular truth. The major is the conclusion itself under another form, and its truth is not more felt than that which it professes to develope. To take, says Brown, one of the trifling examples which in books of logic are usually given *with a most appropriate selection* to illustrate this worse than trifling art, when in order to prove John is a sinner, I do not adduce any particular sin of which he has been guilty, but draw up my accusation more irresistibly by the major of a syllogism,—All men are sinners, John is a man. Therefore John is a sinner.—If I really attached any meaning to my major proposition, all men are sinners, I must at that very moment have felt as completely that John was a sinner as after I had pursued him technically through the minor and conclusion.

The great error, he says, of syllogism—an error closely connected with the ideal systems of forms and species which prevailed when the syllogistic art was invented—consisted in supposing that because all our knowledge may be technically reduced in some measure to general maxims, these maxims have naturally a prior and paramount existence in our thought, and give rise to those very reasonings, which, on the contrary, give rise to them. It is not because it has previously assented to the general maxim—a whole is greater than its part—that an infant from whom half its cake is taken, knows that it has less now than it had before. The general axiom is posterior to the separate feelings of which it is only the brief expression. The syllogism, therefore, which proceeds from the axiom to the demonstration of particulars, reverses completely the order of reasoning. The very knowledge, which is implied in the major proposition, supposes already the previous feeling of that relation which is expressed in the conclusion, for the discovery of which ultimate relation alone the syllogism is supposed to be invented. If we have previously felt *this relation** which the conclusion expresses, we have no need of the syllogism to unfold it to us; if we have not previously felt it, we cannot admit the major proposition of the syllogism which is the first step of the reasoning.

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* Instead of calling the enthymeme a truncated syllogism, Logicians, says Brown, ought to have called the syllogism a cumbrous and overloaded enthymeme.

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* BY EDITOR.—This language is ambiguous—we may e relation in some particular instances, which have led the general proposition—the major of the syllogism,— ver have felt it in the particular instance which is the in question, and which may with more ease be deduced lly from the admitted general proposition, than argued See note B.

In confirmation of the imperfection of syllogism, as an instrument of reasoning for the acquisition of knowledge, Brown adverts to the puerility of the examples usually given. He quotes a remark of Reid's. "Many of the writers on logic are acute enough—there must be some reason why the examples they have given of syllogism are so lean." The reason of this leanness, says Brown, is,—that as conclusion and major are the same proposition under a different form, if any new and previously unknown truth was conveyed in the conclusion, the major should have been a new and unknown proposition, and should itself have required proof. Therefore to obtain assent for the major it was necessary that it should be either *self-evident, or previously demonstrated*, and the unfortunate logician, if he expected his syllogism to be credited, was thus obliged to show the wonders of his art by proving Peter to be a sinner because all men are sinners, or demonstrating that a horse has four legs because it is a quadruped. "The defects of this system," he quotes Reid, "were less apparent in the original works of the inventor than in those of his commentators, because Aristotle never made use of real syllogisms to illustrate his rules, but avails himself of the mere letters of the alphabet"—every A is B, &c.

As an instrument for *communicating* knowledge—for which purpose he says it has been chiefly panegyrised—he considers it, 'if possible, still more' inadequate; for, as the conclusion is contained in the major premiss, if we admit the major, the conclusion is already known, and therefore the other two propositions of the syllogism are useless.

The syllogism trains the mind to two of the most dangerous practical errors—the errors of admitting without proof only what requires proof, and of doubting, that is to say, of requiring proof, only of what is evident! *If these remarks of Brown's were well founded what a dangerous thing must reasoning be! for syllogism, instead of being a mode of reasoning, is, as an eminent modern logician has clearly shown, neither more nor less than the natural process of reasoning itself.* See Whately's Logic.

Beside the direct influence of the school logic 'in retarding and almost wholly preventing the progress of every *better* science,' he accuses it of indirect influences not less hurtful, one was the ready disguise of venerable ratiocination which it afforded for any absurdity;* another, the constant necessity of having recourse to some syllogistic* form of argument; the using these forms in cases in which the opinions involved in the syllogism were at least as clear before the syllogism as after it, rendered *argument* and *belief* by a sort of indissoluble association almost synonymous. Hence the constant tendency of the schoolmen to prove what did not stand in need of proof. Thus Professor Dirodon, a French author of merit, so late as Locke's time, has given no less than six weighty paragraphs to prove that what is possible and what is impossible are not the same.

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* Of this, says Brown, I may take an instance, which Lord Kames has quoted from the great inventor of the system himself. 'Aristotle, who wrote a book about mechanics, was much puzzled about the equilibrium of a balance, when unequal weights are hung upon it at different distances from the centre. Having observed that the arms of the balance describe portions of a circle, he accounted for the equilibrium by a notable argument. "All the properties of the circle are wonderful. The equilibrium of the two weights that describe portions of a circle is wonderful; Therefore the equilibrium must be one of the properties of the

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circle.'" Had Brown not relied on the authority of Lord Kames, but gone to Aristotle, he would have found how little claim the 'great inventor of the system' has to the merit of such an argument. Lord Kames gives no reference to the passage, and wisely—when you would misrepresent another, avoid giving time or place, lest the deception be too easy of detection. The only passage in Aristotle's book on mechanics that could give color to the charge is as follows:—*παντων δὲ των τοιούτων ʼέχει της ἀιτίας την ἀρχην ʽο κύκλος, και τοῦτο ευλογως συμϐεϐήκειν, εκ μὲν γὰρ θαυμασιωτέρων συμϐάινειν τὶ θαυμαστὸν οὐδὲν ἄτοπον*, which, I think, merely means that they need not consider this so very wonderful; for the circle, on a property of which it depends, has properties still more wonderful. When Lord Kames had a mind to father a syllogism on Aristotle, he might in charity have allowed him not such a spurious thing as that, but one that was correct in mode, at least, and figure.

* This was not the fault of syllogism, but of those who misapplied it—the schoolmen.

LECTURE LI.

We come now to consider the *relations of succession* (see page 251),they are those relations which the things related bear to each other as prior or posterior in time; thus in cause and effect, if that which we term *cause* suggested nothing more than the simple conception of the *effect*, or if the effect suggested nothing more than the simple conception of the cause, the suggestion would be referable to the power called simple suggestion; but the cause does not merely suggest the effect, (nor the effect the cause) as a separate object of our thought; it suggests also the new feeling of their mutual relation; thus a painting may not only suggest the conception of the painter, but also the *connexion* between him and it—a relation as distinct from the simple perception or conception which suggested it, as the relations of coexistence are distinct from the perceptions or conceptions which suggest them.

Objects, or events, or feelings, when considered in the relation which they bear to each other as successive, may be regarded as *casually prior, or posterior*, when they occur as parts of different trains; or as *invariably antecedent and consequent*, when they occur as parts of a single train in the order of *causes, and effects*. See page 27.

The relation of casual succession has been already in some measure discussed, when treating of the laws of those simple suggestions which rise according to this relation of proximity in time (see page 206). As there is nothing permanent in this relation, it scarcely can be counted an object of science, its only advantage —but this is a very great advantage—is that which it affords as an assistance to our memory, by connecting and grouping events that were proximate in time, and thus preserving much knowledge that might otherwise be lost.

The relations of invariable antecedents and consequents, which are felt by us to be essentially different from casual proximity, are of much greater importance to our intellectual, moral and physical life, which may almost be said to depend on them. Even if they gave us nothing more than our knowledge of the uniform connexion of *past events* as objects of mere speculative science, they would afford us one of the sublimest delights of which our spiritual nature is capable, but their chief value lies in the command which they give us over the future, since from knowing the order in which past sequences have occurred, and that the relations between them are invariable, we know that they will occur in like order again, and we thus learn the proper means of obtaining good which we desire, and of escaping evil which we would shun.

When we look forward and regard any present object in relation to some other object not yet existing, we feel a relation which, in reference to the effect that is to be produced, may be termed *fitness* or *aptitude*. All practical science is the knowledge of these aptitudes of things, in their various circumstances of combination, as every art is the employment of them in conformity with this knowledge, with a view to these future changes which they tend to produce in all the different circumstances in which objects can be placed. Thus, while mechanic hands are chipping the rough blocks of stones, the architect already contemplates in his mind's eye the future building. What is true in architectural design is true in all the other arts which science has evolved. There are hands continually toiling to produce what exists already to the mind of that philosopher, whom they almost blindly obey, who by his knowledge of the various aptitudes of things knows not merely what is, but what must be.

The mind is a subject of this relation as well as the body, to foreknow what feelings have an aptitude to produce certain other feelings, and to foreknow in mechanics what combination of wheels and pullies will be able—that is, have a fitness—to elevate a certain weight, are powers not essentially distinct, though the sorts of fitness are different, yet the power which reasons from them, which perceives the fitness—is the same. Yet the susceptibility of this same feeling of productive aptitude has in certain *mental* cases been supposed to be different, merely because the objects are different.

In mechanics, in chemistry, when we feel relations of succession and predict events, we are said to do it by the power of reasoning. Even in many of the -henomena, e. g. in politics, when we predict from our knowledge of the relation of feelings to each other, it is said to be the same power of reasoning. But when the states of mind, the relation of which is felt by us, are of a different order, and instead of a legislator who feels accurately the relation of certain feelings to certain attendant emotions in the minds of the people, we think of a critic who feels the relation of certain perceptions of form, colour or sound, to certain emotions of admiration or disgust, that are to arise in the mind of him who has those perceptions of colour &c. though all which is felt in both cases is a certain relation of customary antecedence, we are said to speak not of the power of reasoning but of a different power—the power of taste.

This false distinction of the power of Taste from that general capacity which we have, of feeling the aptitudes of certain feelings to be followed by certain other feelings, of which it is only a modification, has arisen from the complexity of the term taste in our common phraseology, as involving two classes of feelings that may be separated by an easy analysis—emotions, and judgments of the objects that are fit or unfit to excite those emotions. The perception of certain forms, colours and sounds, is followed by an *emotion* of beauty, to *feel* this emotion is one state of mind; to know the relation which other previous feelings bear to it, what forms, or sounds, or colours, separately or together have a fitness of producing the emotion, is another state of mind, as distinct from the former, as the statesman's *political sagacity* in anticipating the violence of popular feeling on any occasion, is distinct from the *passions of the vulgar* which he uses expedients to dissipate. In this latter sense taste is as much a feeling of the relation of fitness, as any of the other suggestions of fitness, on which every science that has regard to the mere successions of phenomena as reciprocally antecedent, and consequent, is founded. Taste in this sense is a science just as much as Mechanics, Chemistry, or Politics. Some authors do not regard taste as a simple faculty of the mind, but the taste of which they speak, is the emotion, not the judgment.

As philosophers, from a defective analysis, converted the various modifications of *simple suggestion* into separate intellectual powers, they have committed the same mistake with the phenomena of relative suggestion. Reasoning and abstraction they regarded as distinct faculties from that of judgment or relative suggestion, erroneously; for if we analyze reasoning—it consists of a series of Judgments and nothing more—take away these consecutive judgments, and nothing remains which can be called a ratiocination. In a simple proposition we take one step, or feel one relation; in an enthymeme, we take two steps—in a syllogism three; in the motion of our limbs we do not think that the power of taking three steps, differs essentially from the power of taking one; it is equally absurd to make this amplification of faculties in the case of the intellectual exercise.

What led to the distinction of reasoning from judg- was the mistake concerning sagacity, (see page hile the power of inventing proofs by willing conceptions and relations was falsely ascribed to the mind, it was a natural consequence of this mistake, that the reasoning which involved the supposed invention should be regarded as essentially distinct from the judgments that involved no such exercise of voluntary power. Reasoning then, as felt by us internally, is nothing more than a series of relative suggestions, of which the separate subjects are felt by us to be mutually related.

Abstraction is a faculty by which we are supposed to be capable of separating in our thought certain parts of our complex notions, and of considering them, thus abstracted from the rest. This supposed faculty is not merely *unreal*, as ascribed to the mind, but *impossible*, since every exertion of it would imply a contradiction.

What is the state of mind immediately preceding this *intentional* separation? Does it not involve necessarily the very abstraction which it is supposed to produce? and must we not therefore, in admitting such a power of *voluntary* separation, admit an infinite series of preceding abstractions to account for a single act of abstraction? If we know what we single out, we have already performed all the separation which is necessary; if we do not know what we are singling out, and do not even know that we are singling out any thing, then it clearly is not by any *voluntary* faculty of abstraction that the separate part of the complex whole rises to our conception.

What then is abstraction? Whence the decompositions of our complex perceptions and notions which are constantly taking place? What is the power in consequence of which conceptions termed abstract, that is, conceptions which are part of former complex mental affections, arise? Not from any peculiar faculty, but in most instances, from the susceptibility of *relative suggestion*, and in the other cases from that of simple suggestion.

The relative suggestions of resemblance (see page 253) involve as parts of the suggestion those very feelings termed abstract; we perceive *two objects*, e. g. a rock and a tree—we press against them—both produce in us the feeling of resistance. We give the name of hardness to this common property, and our mere feeling of resemblance of objects, their resemblance in some respects—to the exclusion of the circumstances in which no similarity is felt—when referred to the resembling objects, is thus converted into an abstraction; an abstraction here is the very notion of partial similarity.

That abstraction which consists in the separate suggestion of one or more of the qualities of a *single* object, is referrible to the power of simple suggestion. No suggestion is a perfect transcript of a former feeling. If we think of a tree formerly seen, we do not remember every single branch and leaf. If we allow then, that in ordinary association the principle of simple suggestion can account for the rise of conceptions that omit some circumstances of the past, it would surely be absurd to attempt any limitation of the number of circumstances that may be omitted by the operation of simple suggestion alone, and, to refer every circumstance that is omitted beyond this definite number to another faculty absolutely distinct.

Thus by a correct analysis of the intellectual phenomena, it appears that though they are commonly ascribed to many distinct faculties, they are truly referrible only to two—*simple and relative suggestion*. In treating of the phenomena of these two powers, our author has not merely examined them as he would have done had no previous arrangements been made; he has also examined those arrangements, and shown how easily they can all be reduced to these two classes. This facility of reduction furnishes a powerful argument in support of his arrangement, since authors who have formed systems essentially different, cannot be supposed to have accommodated the phenomena of which they treated, to a system which was not their own.

That two simple capacities of the mind should be sufficient to explain all the variety of intellectual phenomena, may seem wonderful. But of such wonders all science is nothing more than the development, reducing, and bringing as it were under a single glance, the innumerable objects that seemed to mock by their infinity the very attempt of minute arrangement. Thus the motions innumerable of every mass and of every particle of every mass have been reduced to a few laws of motion: and if we regard the universe itself in the noblest light in which it can be viewed—that which connects it with its omnipotent Creator—its whole infinity of wonders is to be considered as the effect but of one simple volition. At the will of God, the world arose, and when it arose what innumerable relations were present, as it were, and involved in that creative will—the feeling of a single instant comprehending at once what was afterwards to occupy and to fill the whole immensity of space and the whole eternity of time.

ADDENDA.

To accustom ourselves to think after any particular school, is an error more prevalent in the philosophy of mind, than in any other department of science. Why more prevalent? not as has been sometimes supposed, because inquiry into that department must relate to phenomena that are too simple to admit of any great difference of opinion with respect to them; but from the influence of a few primary and diffusive errors, which have passed in ready transmission from inquirer to inquirer, and have vitiated accordingly in the same manner, or nearly in the same manner, all the investigations of which they have formed a part.

Page 4.—Though ETHICAL SCIENCE, if minutely traced to its source, may be found to be only a mode of stating the physical order of succession of certain feelings that arise on the contemplation of certain actions, it still relates to feelings of so peculiar a kind and of such comprehensive influence on the whole of human life as justly to deserve a separate consideration.

The science of ETHICS is itself twofold, as it is purely *speculative*, and as it is *practical;* in the one case, inquiring into the feelings to which we owe our general notions of moral propriety or impropriety of conduct; in the other case, applying this knowledge to the various circumstances in which man can be placed, and stating in relation to these circumstances what it would be right or wrong for him in the particular situation supposed, to do or omit.

Page 5, line 2, after 'intentional tyranny.' A sedulous study of the means by which public happiness may be most effectually increased and preserved, is hence a most important part of public virtue; and the science of POLITICS, in all its extensive bearings on the wealth, the virtue, the liberty, and the security of nations, may be said accordingly to be comprehended in that general science of moral duty which it is the object of practical Ethics to develope and apply.

As it is our *duty* to look with gratitude to the Supreme Being, to whom we owe whatever we possess, the investigations of NATURAL THEOLOGY may be said in this sense almost to be included in *Practical* Ethics.

Such are the various lights in which the human mind may be regarded *physiologically*, *ethically*, *politically*, *theologically*. It is thus the object of many sciences, but of sciences that, even when they seem most remote, have still one tie of intimate connection in the common relation which they all directly bear to series of feelings of the inquirer himself.

Page 21, line 10, after 'blind.' When masses of atoms, without any internal change, are merely separated or placed at a greater distance from other masses of similar atoms that formed with them, before the separation, one larger aggregate. It is *mechanical* division; the change is here merely in the separating spaces, the atoms themselves in each separated mass, are after the operation exactly what they were before it. *Chemical* division is a finer and more extensive process; it does not merely separate a mass into smaller masses, but extends to the corpuscles themselves, or at least to congeries of them, too minute even in their combination, to be distinguishable by the senses, and to be separable by a process purely mechanical. Still it is only a process of separation, affecting only the relative position of the atoms, but leaving them in every respect the same substances as before. There is nothing creative in mere analysis—what was before, is. The mixed atoms which are now separated from each other were separate before the chemical division, though at distances too minute to come within the sphere of our imperfect vision.

Page 42, line 13, after 'approximation.' The striking analogy between the objects of mental and material philosophy, would be more wonderful if we did not remember, that it is only by the intervention of mental feelings that matter itself, in any of its qualities, can become known to us, and that all the processes therefore by which we endeavour to acquire a more minute acquaintance with its phenomena, must have a relation more or less direct to the intellect that perceives those phenomena, and that is impressed with the relations which it regards them as bearing to each other (see page 6). We know our own feelings directly, we know matter only indirectly as capable of inducing some change in the state of our sentient mind. It is therefore less wonderful that objects which are measurable, directly or indirectly, by our feelings alone, should admit only of such investigations as have a common relation also to the phenomena of that mind which perceives and measures them.

Page 47, line 19, before 'we.' The view of the mental phenomena which it is of the utmost importance for simplicity and accuracy of investigation to have constantly before us, while we are endeavouring to philosophize on them, is that which considers all our feelings, of whatever order, sensations, thoughts, emotions, simply as *states of the mind* that bear to each other, or to corresponding affections of our bodily frame, certain relations of either *reciprocal antecedence and consequence* by which we distinguish them as causes and effects, or of *virtual comprehensiveness*, by which it is impossible for us not to regard some of them as complex, and involving, virtually at least, certain simpler feelings as their elements. From the beginning of life to its close, the mind has existed, and is known to us only as thus existing in various states of changeful feeling; the feeling at each moment being its state at each moment that continued till the new state of some other feeling was more or less rapidly induced. The whole series of these feelings, therefore, has been the whole series of its states, and it is in our power to philosophize on these changes of mental state, as we philosophize on any of the changeful phenomena of the material world which they indirectly indicate to us, to fix—by internal observation—the order of their succession, or to mark any other relation which they may seem mutually to bear.

Page 49, line 8, after 'inquiry.' The object of this analysis is not anything which is truly compounded of parts, but a mere relation of seeming comprehensiveness, which, in certain circumstances, it is impossible for us not to feel, of one state of mind to other states in which the mind has before existed.

Page 57, line 17, after 'present.' This erroneous view appears to be a part of that general error, which, after endowing the mind with many powers—that are truly nothing more than certain relations of uniform antecedence of states of mind to other states of mind, or to bodily movements—learns to consider these powers almost as separate entities, and assigns to each a sort of empire over phenomena, of which it is itself merely a name expressive of a certain uniformity in the order of their succession (see page 87).

Page 94, line 17, after 'sensations.' For all states of mind that are direct consequents of certain affections of the nervous system, are those which the class of *external* affections comprehends.

Page 121, line 30, after 'us.' The feeling of resistance, then, as a *primary* sensation (that is, as excited originally, before it is associated with other feelings which may afterwards suggest it,) is a feeling of our muscular frame—it is the feeling which arises when we endeavour to perform an accustomed contraction, and the contraction is impeded.

[illegible]

[illegible]

Page [illegible], line [illegible], after 'originally.' If we were to judge by the phenomena [illegible], then the evidence which they afford is stronger in support of the opinion that the tactual perception of figure is secondary, not primary; that we learn by touch to distinguish actual magnitude, as we learn visually to distinguish actual magnitude; and that the simplest forms, therefore, being most familiar, are most readily and surely learned.

Page 126, line 3, after 'metaphor.' In both time and space, the words *long* and *short* signify a greater or smaller number of portions of a series, and in both alike therefore there is a sort of progressive measurement; the portions of both, which we call long or short, being always considered as a number of consecutive parts which we can conceive to be lengthened or shortened by the addition or subtraction of points of space or moments of time. It is only length of *time*, indeed, which is truly progressive, for length of space is all existent at the same moment; but in estimating either, there is a constant feeling of transition from part to part, which gives to the continuous points of space, in our measurements, a consecutiveness like that of the moments or proximate portions of the series of feelings which constitute all that is known by us of time.

Length, then, whether of space or of time, being the name only of a continued series, it is not wonderful that when both co-exist as objects of our thought, the two series should often be confounded by the mind, and that the internal measurement of each, therefore, should be affected, and often greatly modified by the internal measurement of the other.

Accordingly, we find that in every measurement of space that is not regulated by a mechanical scale, the remembrance of the mental series of feelings is mostly the internal scale, according to which the estimate is made; thus a road travelled over slowly seems longer than the same number of miles gone over rapidly; though we believe the reports of our mile-stones, because we take for granted that the distances between them have been accurately measured, it is only by this faith in the mechanical measurement that we resist the impression of our own internal feelings.

The similarity of the notions of length or continued series of parts, in their different relations to space and time, appears very strongly from this tendency of theirs to flow into one another in such mixed internal measurements of distance. But it may be said that in the measurements of great spaces, the circumstances are too complex to admit of nicety of analysis, and that we are not entitled therefore to extend from them to the simpler measurements of touch, what may be true only in the greater measurements. The experiment in page 128, u. obviates this objection.

Page 126, line 23, before 'the hand.' In every attempt to arrive at the first elements of our sensations, we must begin by considering the circumstances in which the infant exists on his entrance into life.

He has a mind susceptible of various feelings—of all those feelings which are afterwards developed either by the action of external things, or by the tendencies of the mind to exist successively in certain states as the consequence of certain other antecedent states.

He exists in a corporeal world that contains innumerable objects capable of acting on his senses, and he has an organic frame which is capable of being the medium of such action, but that organic frame is as little known to him as the system of external things of which it may itself, with reference to the mind, be considered a part.

Page 128, line 11, after 'time.' And surely that notion of extension was, in an equal degree at least, influenced by the length of the series of feelings in our infancy, before experience could have come in aid of our primary feelings, to correct their occasional irregularities and illusions.

Page 128, line 19, after 'matter.'—Outness, Extension, Resistance, mingled in one complex feeling, are, in our conception, matter.

Page 130, line 11, after 'reject.'—Whether this impossibility arises from a primary and peculiar intuition which accompanies our first sensation, or whether it be the gradual result of other influences, is of no consequence as to the justness of the belief: we are believers in external nature long before we are capable of thinking whether the existence of that world, which appears to be around us, wherever we are, be a question for philosophic enquiry. On the one supposition our belief becomes, at last, what, on the other supposition, it is asserted to have been in the first sensations of our infancy. The intuition which in the one case is primary, is secondary in the other case, and combined with the influence of other principles of our nature; but in both cases the belief depends on intuition in one stage or other, and in both alike. If it were possible for us to abandon our faith in every seeming truth that is not demonstrable by reasoning, the belief of a system of external causes of our sensations would cease with that abandonment; but this is impossible, the sceptic, in arguing against the reality of external things, takes for granted that he has a disputant in the world without, on whose senses of sight or hearing he is to operate, and he avails himself instrumentally of substances which he regards as corporeal, at the very moment of his using them to prove that there is nothing corporeal.

Page 131, line 29, after 'state'—Berkeley's reasonings against the existence of matter do not then deserve all the praise for ingenuity which they have received; they are, as we have just seen, little more than the development of one or two errors as to the nature of the mind and its affections—errors nearly allied to opinions (about ideas) which had prevailed for many ages, but that were little in the spirit of the sound general views, which had been introduced into intellectual science by the eminent philosophers who more immediately preceded him. His errors, we see, were primarily and fundamentally errors as to the mind itself; for it is in his false views of it, that all which is fallacious in his view of matter is to be found. It is not then in the writings of Berkeley, acute and excellent a philosopher as he was, that we must look for any just view of the sceptical argument.

Page 132, line 18, after 'admit'—It is thus by ascribing the belief in an external world to an intuitive principle that has in it all the force of demonstration itself, (because it has all the qualities of those primary truths which demonstration itself only evolves more fully in unsuspected applications of them, but does not render of stronger evidence,) and only thus that the sceptical argument, as to the existence of matter, admits of being answered: and the answer and the scepticism are alike independent of any false notions which may be entertained with respect to the nature of ideas, since both proceed equally on the belief that ideas are mere affections or states of mind.

Page 136, line 2, after 'erroneous'—Thus, according to Reid, the process by which we become acquainted with external things consists of two distinguishable acts of the mind—Sensation and Perception; the latter being a peculiar power of the mind, by the operation of which we have an immediate conviction of qualities of external things that excite our sensation: this view of perception, as a distinct *faculty*, cannot be admitted, because it is formed on a very imperfect analysis of the phenomena.

Page 139, line 26, after 'sensation'—The mysterious obscurity of the meaning attached by Reid to the relation of the *object* of perception to the *percipient mind*, as different from that of the ordinary sequences of events in causation, tended greatly to aid the illusion with which he flattered himself, that he was the overthrower of a great system of error, in his exposure of the absurdity of the ideal system of Perception. This mistake about the object was caused in this way—in the process of perception, there is—the presence of something external—an organic change or series of changes—the subsequent affection of the mind itself. Of the last part of the process, the affection of the mind, what is the *immediate antecedent*, or *external cause*, or *object* (for all three mean the same)? The organic change, that is, the state of the nerves and brain, is, of course, the *exact* immediate antecedent.

But we are not always so exact in our analysis and reference; it is much more convenient, for the sake of brevity, in popular and even in philosophic language, to omit the organic change, and to speak only of the perception or mental affection itself, and of the object that is external, not merely to the mind itself, but also to the bodily organs, as if this object was the *real* object of the perception—the *immediate* antecedent, instead of being, as it is, only the *remote* antecedent. This separation of the object from the train of bodily changes that follow it, *as if it had itself a relation to our feelings that is primary and direct:* and the peculiar importance attached to its presence, as that on which the other changes of the train depend, lead very naturally all who are little accustomed to nicety of analysis to suppose the relation of the object in perception to be one of a peculiar kind, different from the relation which the other parts of the train bear to each other, and to be something very mysterious. No wonder, then, that a person impressed with this false notion, that the *real* object (whether it be the external object or something else) must be something thus mysteriously connected with the perception, should ascribe to philosophers, who spoke of the external object merely as a part of the train like any other part, without anything peculiarly mysterious about it, a belief in something else—an image or other intermediate thing—as the mysteriously-connected real object. This fallacy would be much strengthened by his understanding phrases literal sense which were meant in a metaphorical

e. See page 150.

Page 154, line 30, after 'confuting.'—In truth, it was to the influence of the Cartesian philosophy that we owe the gradual decay of the peripatetic error, which, during the reign of the commentators on Aristotle, may be said to have been universal in the schools.

Page 155, line 21, after 'author.'—It was, perhaps, unfortunate for the accuracy of Reid's philosophy, that his view, as a controversialist, was so frequently turned to the speculations of Hume, who, though acute, was defective in precision of metaphorical language, and who, perhaps, occasionally, for the sake of giving greater force to his sceptical reasonings, which a little verbal confusion might render more difficult to combat, was less nice in his analysis and in the application of his terms, than he would otherwise have been. In stating the sceptical argument against the evidence of the senses, he uses phrases, which, taken literally, without attention to the spirit of the argument, would favour the belief in images in the mind. But it is clear that by *image* he meant nothing but *perception;* for he says, "The existences which we consider when we say *this house* and *that tree*, are nothing but perceptions in the mind." Reid, who had been originally, by his own account, a believer in real images of things, was the more naturally led to conceive his own error to be the common belief of other philosophers, and, in conformity with this opinion, therefore, to interpret strictly in every case the phrases that were used by them with a metaphorical or limited application. His self-illusion as to the supposed overthrow of the ideal system, was thus perhaps the consequence of his own former belief of that very Ideal system.

Page 156, line 12, after 'himself'—(for no sceptic denies the absolute impossibility of disbelieving the existence of external causes of our sensations—an impossibility that would be the same whether little images of things existed or not—he does not deny this impossibility, but he maintains that the impossibility itself is the result of an illusion).

Page 170, line 15, after 'blended.'—Berkeley's supposition then of a *visible* figure primarily perceived, as distinguished from *tangible* figure, is supposed *without proof*, since never, as far as we can trace back our feelings, have we been sensible of any other coloured form than the tangible, and since, all our sensations arising from affections of superficial nervous matter, the image on the retina is not more figured than the part of any other expansion of any other organ of sense which is affected to a certain extent by its particular object. It is supposed in *opposition to proof*, for it assumes that, during the whole time of our gazing on an object, there is one mixed perception of coloured form arising from the union of feelings that are incompatible.

Page 183, line 15, after 'reality.'—Of all our elementary feelings the most important in modifying the other feelings with which it may co-exist, is the *Emotion of Desire*—an emotion so various as to its objects, so frequent in its renewal, and so powerful in its effects, as to have obtained, under the name of the *will*, when considered with a relation to the changes induced by it, a very prominent place in every system of philosophy of the mind.

What is commonly termed the will in relation to such changes, is not simple desire; it is *desire with knowledge*, and with a consequent anticipation of the particular result that is immediately to follow. But the most important element of the complex state of will is the mere desire of that particular effect which is said to be willed; the knowledge and anticipation which, as elementary feelings, are the same in kind, whether relating to events that depend on us or are foreign to us, are the result of experience only, by which we have before learned that the particular effect desired by us has been in similar circumstances the immediate attendant of the very wish itself; and if, from a different arrangement of the sequences of events in nature, experience had not given us reason to make this anticipation at the moment of our desire, though we might still have wished the particular effect as before, the powerless wish would no longer have been termed *will*, but would have been classed as a mere desire with all our other desires.

In the whole metaphysical vocabulary, there is perhaps no word which philosophers have contrived, with all their art, to render so mysterious as this little monosyllable. But though a more accurate analysis shews that all which distinguishes any particular *will* as a mere state of mind from the analogous states of the mind which are termed *desires*, is the accompanying anticipation of the instant sequence of its object—a sequence so instant as to render us less capable of recognizing the antecedent desire as a mere desire, in the brief moment in which it begins and fades,—still the verbal distinction, if accurately understood, may in many instances be a very convenient one. We *desire* what may never take place, and what may continue, therefore, very long as an object of our desire, but we are said to will only what it is impossible for us to desire above a moment, because it immediately takes place in consequence of our mere volition; the name of *will* being confined by definition to the desire of effects which are thus directly in our power—that is to say, which take place merely because we have wished them to take place.

Our sensations, then, not being in our power, we cannot be said to will them, though we may still desire them in *the absence of their external causes* or *in a state of disease which prevents the necessary organic affection*, even though the external objects should be present; the prisoner in his dungeon, the blind man in the midst of sunshine, may *wish* for the sensations of light and colours, but, since the sensations do not arise in consequence of the wish, we never speak of *willing* a sound or a sight.

But though we cannot will a sensation, we may, when various sensations have arisen together, or when many objects of a single sense are together present, ire to be impressed with some part of the complex perception in a more vivid manner than with others; and in consequence of this very desire, the elementary sensations are greatly modified. Such is the state of mind in that complex process which is termed Attention.

Page 189, line 9, after 'themselves.'—The redundancy of division, the great defect of the Scotch school of Metaphysics, arose partly from imperfect analyses of the complex phenomena of thought, which a nicer observation might have shewn to be in their elements the same, but still more from indistinct notions attached to the words *Faculty* or *Power* of the mind, and to the processes that are termed *operations* or *acts* of those powers, by which a sort of mystery has been thrown over the simple sequences of the phenomena of the mind, the relations of which to each other or to certain bodily changes are all which these words can be justly employed to denote.

Page 197, line 21, after 'phenomena.'—It is by this wide influence of the suggesting principle, as extending to our opinions and passions, as well as to our mere conceptions, and only by this wide influence, that the growth of prejudices and habitual tendencies of every sort, in the mind, can be adequately explained; and it is an influence which, but for the invention and constant use of the more limited phrase, we should never have hesitated to admit. Why association was supposed to be confined to *ideas*, and not to judgments and emotions, was, because judgments and emotions may arise at one time as they arise at another time by the same primary tendency (of judging, &c.), on the contemplation of particular objects perceived or conceived; we therefore cannot distinguish, in any particular case, the influence of simple suggestion from the primary influence; and what may have been the result of this renovating tendency in the mind as truly as any conception which has been induced by some former conception, is ascribed, therefore, not to association, but to the original susceptibility that first developed it. But when the conception of an object is excited in the absence of that object, it is impossible for us to make the same reference to the primary tendency (of perception). We discover instantly in this case, that the cause of the feeling must be different from the cause of the original perception, when the external object was present, and we are obliged accordingly to invent some phrase to express the peculiar tendency of the mind from which the renovated feeling may be supposed to have flowed.

Page 220, line 14, after 'proximity.'—If one object resembled another, it must resemble it in some particular circumstance or number of circumstances. There must be some part, therefore, greater or less, of the complex perception or conception of each that is the same or nearly the same as some part of the complex perception or conception of the other, and, as in both alike, this common element has co-existed with the other elements of the complex whole, it may in either case, when only one of the objects is present to our perception or our thought, be sufficient for the suggestion of the similar object, and may produce this effect without any other influence than that of the mere proximity of one part to the other parts that have before co-existed with it.

Page 221, line 7, after 'proximity.'—When two objects are strongly contrasted in any quality, they agree in this, that they are both extraordinary in relation to that quality. Each therefore singly may have excited this common sentiment of extraordinariness with respect to the same particular quality, and this *sentiment* with respect to the same quality, may, like any other part of a complex whole in which two objects agree, be sufficient to produce a reciprocal suggestion by the influence of mere co-existence.

Page 220, line 6, after 'two.'—In like manner, in the analogies that lead to physical discovery and invention, there is always some *partial proximity* that may be found in the parts of the train of thought, because there is always some circumstances common to the causes and effects, or means and ends, that are said to be analogous, on account merely of this common circumstance. The connecting link in this case is not often, as in the suggestions of poetic fancy, a *common emotion* which the analogous objects tend equally to excite, though a tendency to lively admiration of the wonders of nature and art, by leading the mind to contemplate them in their varied aspects more intently and permanently, may sometimes operate in the same way. It is usually a feeling of a less vivid kind, the result of minute analysis, indicative therefore of a frame of thought, which, though in some respects similar to that of the poet, is, in many other respects, very different from it. Every phenomenon in nature and art is to a certain degree complicated, it has a concurrence of many circumstances, some of which are essential to the production of the particular effect that is chiefly in our view, while others are accidental, and may vary without any variation of this particular effect. He therefore *who analyses most-minutely* the whole complex physical sequence, will at once be the quickest to distinguish the essential from the accessory and unimportant circumstances of that particular sequence, and in consequence of this internal separation of part from part, will be the quickest also to arrive at the elements which are common to the phenomenon observed at thè moment, with other kindred phenomena observed before. In such a mind therefore, the suggestions of analogy will be far more abundant than in a mind which is little accustomed to minute analysis, because to the analytic intellect the part of the complex whole in which the resemblance consists that leads from analogous cause to cause in nature, or from analogous means to means in art, is most distinctly present. Therefore he is the most inventive philosopher who is accustomed to analyse most minutely the phenomena observed by him, and whose experience of causes and effects, or means and ends, is at the same time most extensive, so as to allow the most varied suggestion of analogous phenomena, when the circumstance that is common to them, is, on such minute analysis, most distinctly evolved and perceived.

But whether suggestions of analogy be thus indirect or be direct, it is to them genius owes all its seeming inspiration. A mind gifted with a tendency to such suggestions seems, in the new combinations which it forms, to give novelty to every image, merely by presenting it in a different order. What would otherwise have been mere memory, is, by this difference alone, converted into Fancy or imagination

Page 232, line 8, after 'suggestion.'—When we endeavour to trace events obscurely remembered, and the obscurity seems to fly away before our wish, and there is the appearance thus of a power which can be exercised by us over the trains of thought: this power (if any such existed, as from defective analysis was falsely supposed) being distinct from ordinary *suggestion*, in which conceptions arise without any relation to our will, would require to be expressed by another name. Hence we see how the defective analysis of reminiscence may have aided the illusion with respect to memory as a distinct power.

Page 234, line 23, after 'assemblages.'—Without novelty of combination, there is no imagination. He who *composes* a poem, exercises imagination. He who *recites* it, though presenting the same images and sentiments and diction, is said to exercise only his memory. This novelty of combination is an inevitable result of two principles—the *tendency* to the suggestion of *analogous* conceptions, by analogous conceptions or conceptions, and that *continuance* which often takes place of the suggesting along with the suggested conception, in series that sometimes widen into groups the most complex, by the successive suggestion of new images related to parts of the co-existing whole. But a group of images or a single complex conception may also be novel as a whole, by the absence of some customary parts, as well as by the addition of others, e.g. human figures without heads, would be as novel a combination as human figures with two heads; when many images, therefore, co-exist in one complex state of mind, though the whole complexity may be a faithful copy of some equally complex perception, and therefore have no novelty in itself, if certain parts of that complexity fade away more rapidly than others, the residuary group may present an aspect as new as if the whole had been one new product of the suggestions of analogy.

Page 237, line 25, after 'before us.'—And here we may remark the beautiful reciprocal influence, the conception primarily excites the desire—the desire, embodying as it were the conception, communicates to it some portion of its own vividness, as well as it renders it permanent.

Page 238, line 9, after 'themselves.'—All that seems creative is nothing more than the existence of a certain previous desire and the ordinary sequences of suggestion.

Page 251, line 14, after 'mind.'—The former of these, from the greater permanence of our perceptions, when external objects are before us, giving rise to a wider variety of such feelings of relation.

Page 254, line 9, after 'but.'—On account of misconceptions that have arisen partly from a defective analysis of a very simple process, but still more from the mysterious darkness of the technical language that has been used to express it.

Page 268, line 26, after 'general.'—There were some circumstances which prepared the way for the too easy admission of Nominalism, and which lessened therefore, relatively, the amount of error to those who considered the doctrine only through the medium of those circumstances. The first of these was the very gross absurdity of the doctrine of Realism, to which it was primarily opposed. On the doctrine which first dares to oppose such gross errors as those of the Realists, we naturally look with more favour, on account of the very absurdities opposed to it; and even now, if we had no choice but of rigid Nominalism or the universal a parte rei, the Nominalism, however inadequate to explain the phenomena, might deserve to be preferred as at least the simpler error of the two. But another and much more powerful cause of the too ready acquiescence in Nominalism, is to be found in the imperfect analysis and erroneous language of the modern combatants of that doctrine.

Page 271, line 27, after 'feeling.'—Locke, unfortunately, from an imperfect analysis, made an arrangement of the feeling which subjected, to various misapprehensions—he arranged that feeling as a general *idea* which was truly a general *feeling of relation.*

Page 272, line 6, after 'eye.'—When it is shewn that the feeling which alone gives generality or any meaning whatever to the general terms employed by us, is a feeling of mere relation—a feeling of agreement or similarity, excited by certain objects when contemplated by us together—a difficulty is obviated that must have been felt very strongly as long as the general feeling was supposed to be a *conception* or *idea*, and that must have tended, in the same proportion, to favour the influence of Nominalism. There is no question that we may carry on a process of reasoning without any definite conception of a precise object, because reasoning is the development of relations, and relations may be expressed in terms that are wholly general, and may be hypothetical or contingent as well as real; thus,

All Ys are Zs; therefore if all Xs are Ys; all Xs are Zs. In like manner, in Algebraic calculation, all that is present to the mind till the conclusion is evolved, is a number of relations of signs that, independently of those relations, would be wholly insignificant. Now, though in Brown's view of the generalizing process, there is no mystery in this continued development of new relative feelings, because relations are all that can be considered as general in the feelings which general terms are employed with a co-extensive generality to express; there would not be the same facility of comprehending the nature of such reasoning, while it was supposed that in generalizing, and consequently in reasoning, which must always be conversant with generalities, a conception or idea must be continually present to the mind, as often as any general term is used, with a full understanding of its meaning. The processes of Algebraic calculation that seemed to evolve only signs and the relations of signs, as they afforded no such conception or idea, appeared to the Nominalist, while he thought only of the Conceptualism opposed to him, to be strongly corroborative of the soundness of his doctrine; though he ought to have reflected that as signs alone, in indiscriminate confusion, never could constitute reasoning, and as the common relations of these signs were truly what the reasoning was employed to evolve in a certain regular order, even the most abstract calculation was a sufficient proof of the necessity of those general feelings which he falsely supposed it to disprove.

The generalizing process then is either two fold, as it is simply internal in the mind, or three-fold, as the internal feeling of relation is expressed by a word of corresponding generality.

NOTES.

NOTE A. See page 59.

Beside the causes of Reid's error concerning consciousness which have been enumerated by Brown, another cause which might have led him to consider it a distinct faculty from sensation may have been the doctrine about visible figure prevalent since the time of Berkeley. (See page 167.) While we were supposed to have a *sensation* of visible figure of which we had no *consciousness*, as all agreed we had not (see page 168), it necessarily followed that sensation and consciousness must have been held distinct states of mind.

NOTE B.

Dr. Brown's remark, that the major premiss is the conclusion, under a different form, is not very incorrect; yet his inference, that syllogism is therefore absurd in theory, and retards the progress of reasoning, is false. When he says, The *general* axiom is posterior, in the order of our thought, to the *separate* feelings, and that therefore the syllogism which proceeds from the axiom (i. e. the major premiss) to the demonstration of particulars, reverses the order of reasoning; his language is ambiguous, and it is that ambiguity which has misled him into his denunciation of syllogism. The major premiss, the general axiom, or, more correctly speaking, the general proposition, has doubtless been arrived at by induction from the consideration of some particular cases. The conclusion in question may have been one of those particular cases from consideration of which the major was inducted: if so, the conclusion had, in our order of thought, an existence prior to the general proposition; but if, as must be far more probable, the major premiss was inducted from other particulars, and not from the conclusion in question; then the major premiss had the prior existence in our thought; it may have been proved and acknowledged and treasured up as a fund from whence to derive the means of advancing in knowledge, long before we ever thought of the conclusion in question. Suppose a geometrician has need, in the course of some investigation, to make use of the relation of equality between the regular dodecagon described on the hypothenuse and those on the sides of a right-angled triangle. It is probable that in the whole course of his life he never before compared dodecagons on the hypothenuse and sides of a right-angled triangle, yet he is convinced of their equality—convinced of it instantaneously—why? because he knows that any rectilinear figure described on the hypothenuse is equal to the sum of the similar figures similarly described on the sides: this is a general proposition derived by induction from considering some particular case, perhaps that of parallelograms on the hypothenuse and sides, perhaps that of some other quadrilateral or of some triangular similar figures on the hypothenuse and sides: it is not very likely that the general proposition was inducted from the particular case of dodecagons on the hypothenuse and sides, and, if it was not so inducted, of course the general proposition concerning *all similar figures* had in his mind an existence prior to the particular case of dodecagons. How then has he acquired a knowledge of the equality of those dodecagons? He deduces it from the general proposition already proved, by a process almost instantaneous, but which, if analysed, is as follows:

All similar figures similarly described on the hypothenuse and sides of a right-angled triangle have this relation of equality.

Regular dodecagons are such similar figures.

Therefore they have this relation of equality—a syllogism in the first figure, agreeable to Aristotle's remark, which Dr. Reid could not understand, yet was cautious about denying, that mathematicians reason in the first figure.* See Dr. Reid's Appendix to Lord Kames' remarks on Aristotle's Logic.

The ambiguity which misled Brown is conveyed in the words, the general axiom is posterior to the *separate feelings*; it undoubtedly is posterior to *some* particular cases, to *some* of the separate feelings, but still it is *prior* to others; thus, in the example above, the general proposition about all similar figures is posterior, in order of thought, to the particular case, e. g. of parallelograms on the sides, from which the general proposition was inducted, but prior to that of dodecagons, and therefore there is no absurdity in deducing this case from the more general proposition, which is already fixed in the mind as a stepping-stone to ascend to higher attainments of knowledge. The general proposition, as I have just said, was established by induction from some particular case which had first to be proved; the case, suppose, of parallelograms on the hypothenuse and sides; that particular case was proved by a long process of ratios, duplicate ratios, and division of ratios. But, once proved, it inductively established the truth of the proposition, not for parallelograms alone, but for all similar figures. Now if we would compare dodecagons on the hypothenuse and sides to-day, must we repeat the long process of ratios, duplicate ratios, and division of ratios, to prove this particular case also, instead of deducing it at once syllogistically from the general proposition already established? If we will compare regular pentagons to-morrow, are we for this particular case again to be driven back upon our oft-repeated process of ratios, duplicate ratios, and division of ratios, and so for every other particular case? Is this what Lord Kames, what Doctors Reid, Stewart and Brown would recommend as the *more natural* and *shorter* process?

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* When in proving, e. g. the second proposition of the 6th book of Euclid's Elements, we make use of the proportionality of the triangles on the segments of either side to the segments themselves, is not the mental process by which we assume it a syllogism in first figure?

Triangles having same altitude are to each other as their bases.
These triangles have the same altitude.
Therefore, &c.

We do not, to be sure, go through the formal statement of a syllogism; we merely say these triangles have the same altitude, therefore (*by the first proposition*) they are as their bases. But though we express ourselves thus elliptically, nevertheless, the process in our own minds is syllogistic. (See Whately's Logic, p. 33.) In like manner, our silent *reasoning* in every other case may be shewn to be syllogistic, *in principle* always, and even *in form* oftener than we ourselves suspect, or stop to enquire; we reason syllogistically, and have a very sufficient apology for doing so—simply because we have no other way of reasoning. Whately's Logic.

How the ingenious mind of Brown could have been led into joining the hue-and-cry which those other gentlemen had raised against syllogism—how he could accuse it of futility, because the major contains the conclusion in it, is particularly strange, when we remember what he himself said in the 48th lecture:—'It may,' he says, 'seem extraordinary that we should have been able to form opinions which *involve important truths afterwards detected* in them, without having at the time the slightest suspicion *that any such truths* were *contained in the general notions* and general phraseology which we formed. But the reason of this is sufficiently obvious when we attend to the nature and order of the process of generalization,' &c. &c. Can anything be more inconsistent than for the author of these remarks to challenge syllogism on the ground that the major premiss involves the conclusion?

Another charge against syllogism is, that it is only applicable to puerile and profitless examples. Now the fact is this, when the particular cases from which a general proposition is inducted, require a long and difficult proof, there it is that syllogism or reasoning is most serviceable, it being a shorter process to deduce other particular cases from that general proposition already established, than to trace each of them in its turn through the long and difficult proof. But where the particular cases from which we induct the general proposition are obvious, and the general proposition therefore a mere maxim, there syllogism or reasoning is seldom requisite. To *observe* any required particular case may there be as shortly done as to *reason* it out of the maxim.* Thus while syllogism is the shortest and most natural process for deducing a proposition about regular dodecagons from one about similar figures, we can, on the other hand, be quite convinced of this truth—*that man has feeling*—without levelling a syllogism at it. So that instead of being merely applicable to puerile and profitless examples, it is to these that syllogism is really least applicable. It is needless to dwell longer on those mistakes into which Doctor Brown has been drawn by hastily adopting the unfounded prejudices of his predecessors—those prejudices of theirs Dr. Whately has so completely exposed, that any further remarks would be unnecessary.

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* Syllogism may in this respect be compared to logarithms. A logarithm of a high number is calculated once for all, and being stored up, shortens the process of all future multiplications where that number is a factor. So a general proposition, once proved, is stored up, and particulars contained therein may be afterwards deduced from it by the easy process of syllogism. As logarithms are unnecessary in multiplying or dividing small and simple numbers, so is syllogism in establishing the truth of self-evident or obvious propositions, and a complaint against logarithms, that they retarded the process of reasoning, because in their application to simple numbers they might do so, would be as well founded as the similar complaint against syllogism, which only applies where the major premiss is a self-evident proposition.

Of the following questions, nearly 300 have been put to the candidates for Fellowships and Ethical moderatorships in Trinity College, Dublin.

These 300 are mostly taken from the Dublin University Calendar. The Latin questions, and a few of the English in Italic type, were fellowship questions; the rest of the English in Italics were proposed to the moderatorship candidates.

The numbers refer to the pages—the letters u, m, l, n, to upper part, middle, lower, and note.

QUESTIONS.

How is the mind to be known? 3 u. Division of the philosophy of the mind? The human mind is the object of many sciences? 3 m. What is mental physiology? 3 l. An important distinction between physiology of mind and matter? 4 m. Value of political study, how shewn? Ethics are in some sense a part of the physiology of the mind? 4 l. Very obvious distinction between the physical investigations of mind and matter? 5 l.— Consequences of this distinction? Advantage peculiar to the mental investigation? 5 l. The science of mind is essential to every other science? Sciences are, in a certain aspect, arts or the results of an art? 6 m. *How does it happen that the science of mind derived from an individual source is scattered over so many systems?* Every speculation in every science has a certain relation to the philosophy of the mind, what relation? and why? 6 l. A change in the laws of mind would affect the nature and limits of physical sciences as much as a change in the laws of matter? 7 m. *From what relations?* 6 l. It would greatly affect their progress also? What is science? In what does its progress consist? 7 l. Objection, that many who never made the mind their study have yet been eminent in other sciences, answered? 8 u. The diffusion of scientific truths explained? 8 m. Illustrated. To what is the origin of better plans of physical investigation attributable? Proof? *To what source does Brown mainly attribute Bacon's reformation of the principles of physical enquiry?* 8 l. Yet it is not to the improved philosophy of mind that we generally attribute the improvement in physics? Why? 9 u. How is the absurdity of the scholastic mode of philosophising obviated? 9 l. *Remarkable example of a logical error preventing the progress of the physics of matter?* 9 m.

The study of the limits of the mental faculties does not favour scepticism? 11 u. Just views of mind save us from dogmatism, as well as scepticism? 11 l. Intolerance from whence? 12 m. Advantages to science in general from study of the mind. 6 u. 8 l. 10 u. l. 11 m. l. 12 m. 13 m. Peculiar advantages from this study in certain sciences—what sciences? 13 m. Moral advantages from this study? 14 l. The study of moral science tends in two respects to strengthen the admiration of virtue and the abhorrence of vice? 15 u. This study also serves the ends of religion? 15 l.

Methodus inquisitionis quare eadem est in physica mentis et corporis? 17 u. The same laws of inquiry are applicable to mental and material physiology? Why? 16 l. The mode of proceeding in each of these inquiries is the same? Meaning of the term *laws?* 17 m. Strict adherence to the rules of philosophising are more necessary in mind than in matter? 17 m. In what does physical science consist? On what is science founded? Quemnam campum observationis amplectitur scientia mentis? unde derivatur campus? unde habetur. Hæc potentia (relativa mentis) est fundamentum omnis scientiæ realis et practicæ? 17 l. From what source arose the waste of labour in the enquiries of the scholiasts? Two great objects of the philosophy of matter? 18 u. Analagous to these are the objects of the philosophy of the mind? 41 l. This analogy rendered less wonderful by what consideration? 17 u. Divisio omnium investigationum physicarum in duas classes? 18 u. 41 l. The unity of a substance is relative? Unitas corporis quare mere relativa (n. b. the unity as well as every other species of relations, e. g. the *tallness* of a tree and the *lowness* of a shrub, do not express real qualities of the objects—the tree and the shrub—but only that the mind has considered them together) 20 m. *Source of physical analysis according to Fontenelle?* 21 m. Aphorismus a Fontenelle prolatus de origine philosophiæ ? quatenus verus ? 21 l. How far does Brown agree with him ? 21 l. *How does Brown express and illustrate the fact of the enquiring mind transferring its own errors to external nature ?* 20 m. & l. Cartesii exemplum (etiam magis quam Fontenelle opinabatur) valorem methodi bene illustrat ? 20 u. Our knowledge of matter is paradoxical ? Yet the paradox does not justify sceptical doubts ? 22 u. Quare ignorantia quoad verum numerum corporum componentium haud adfert scepticismum, generalem quoad corpora ? 22 m. Our knowledge of bodies is certain, though their elements are unknown ? 22 m. The necessity of inquiry in the two views of matter does not proceed from the same cause ? 23 u. On what hypothesis would these two views of physical inquiry coincide ? 23 m. Analysis originalium idearum apud Lockium falsæ innititur hypothesi ? 23 l.—24 m. *Locke's error concerning the elements of bodies ?* 23 l. Nature of the error ? Whence ? 24 m. What consideration would have led him to detect it ? 25 u. Qualis debet esse sensuum provectior conditio secundum Lockium ut duæ partes physicæ investigationis coalescere possint ? 23 l. Duplex culpa in hâc conjectatione ? 24 m. The province of experience and of physical inquiry are different ? 26 m. Anticipatio per quam futurum præterito assimilamus denominatur instinctiva,—hanc denominationem vindicat. The expectation of the similarity between the past and the future—whence ? *What is the foundation of all enquiry in the second department of physical enquiry ?* 26 m. Whence according to Hume ? *From what principle of our nature does experience derive its value ?* 26 m. *How does Brown refute Hume's attempt to explain away Reid's inductive principle ?* 26 l. His error ? 27 u. Analysis of power ? Of cause ? Of effect ? 27 m. Arguments in support of this theory of causation ? 27 l. . . . 28. Error of Reid in rejecting it, whence ? *He is guilty of the ignoratio elenchi ?* 28 m. Opinio vulgaris de potestate sibi contradicit ?—(the common opinion is, that in every sequence of events, the *powers*, which are the sole efficient but invisible producers of them, are something that is no part of the antecedent, and yet is a part—something that intervenes between each antecedent and consequent, without being any thing intermediate). Aristotle's division of causes? Plato's? 29 m. Analogy between power and form? 30 u. Quodnam criterion ponit Brown ut demonstret causam esse antecedentem invariabilem et nil aliud? 31 m. *Source of confusion concerning power, cause, and effect?* 31 l. 30 m. *Why has this error survived that concerning form?* 32 u. Unde deducit idolum causationis Professor Brown? 33 u.

Hocce idolum progressum philosophiæ retardavit? 40 l. Three important effects of the imperfection of our senses on our physical inquiries? 34 m. *Source of hypotheses?* Best remedy for a proneness to them? 34 l. *Objection to them?* 35 m. Progressus etiam scientiarum quomodo opinionem vulgarem de causis occultis et efficientibus generare solet? 33 u. Versus apud Genesim de creatione lucis perfecte philosophiæ analysi congruus est? 34 u. n. How many hypotheses may be invented to explain any phenomenon? Whence the ready reception of hypotheses? 35 l. Præter idolum causationis unde aliunde acuta propensio mentis, ad hypotheses? 36 u. Da exemplum? Quomodo ostendit quod numerus classium phœnomenorum minuitur? Remarkable instance of false simplification? 36 u. Hypotheses where useful? 36 l. *Use of them?* 37 u. Two great sources of error in our practice of philosophising? Cum alterâ propensione mentis propensio ad hypotheses aliquando confunditur? Quænam est discrepantia inter hypothesem et theoriam? 38 u. 39 m. Even in *general laws*, hypothesis lurks? 38 u. *Distinction between hypothesis and theory?* 39 m. *Theory less objectionable than hypothesis?* 39 l. In what respect is theory more dangerous than hypothesis? 40 m. Cautio adhibenda in usu theoriarum? ubinam est hæc species ratiocinationis certa, ubinam conjecturis obnoxia? da exempla circumstantiarum? 38 l. Applicatio legis ad solutionem phœnomenorum in scala descendente anne hypothetica? 38 l. False theory of causation retarded the progress of philosophy, in two ways? 40 l. Futile distinction of causes made even by some who recommended the proper objects of philosophic inquiry? 41 m. Nature of our knowledge both of mind and matter? 42 m. 44 l. Absurdum est quærere qualis est materia absoluta? 42 l. Our knowledge of mind is relative and not absolute? 43 m. Analogies between the philosophy of mind and matter? 41 u. 42 m. 43 l. 46 m. Our knowledge of mind is a paradox as well as our knowledge of matter, but for a different reason? 22 u. 43 m. Matter what? Mind what? 44 u. The proper field of philosophy? 45 m. How proved? 44 l. Whence the illusion that we could predict some sequences both of mental and material phenomena? 46 l. Objection to the alleged analogy between the objects of mental and those of material philosophy? 47 l. Quare primo intuitu physica mentis complecti videtur unam tantummodo ex duabus partibus quæ physicæ corporum debentur? 47 l. Answer to the objection? 48 m. Affections of the mind, what? 47 l. Analysis, what? 48 u. 21 m. Mental analysis, what? Mysterium analyseos mentis quomodo amovetur? 48 m. 50 u. All the feelings of the mind are really simple? 47 l. In what sense can any of them be termed complex? 48 m. Intellectual and chemical analysis, differ how? 48 l. Triplici munere fungitur mens in analysi suorum phœnomenorum? The process of analysis in the philosophy of the mind? 49 u. Foundation of mathematics? There is a feeling of virtual equivalence? 49 l. Objection to the application of the term *analysis* to mental phenomena? Answered? 50 l. Quonam argumento utuntur ii qui omnem progressum possibilem in psychologia nunc perfectum esse auspicantur? *From what causes have some disparaged the science of mind as a field unfruitful of discovery?* 50 l. Absurditas hujusce argumenti quomodo illustratur? 53 m. It is really inexhaustible? 51 u. 52 m.—53. There is a difficulty in the physical investigation of mind, similar to that which arises in matter, from the imperfection of our senses. Whence this difficulty? In what does it consist? 53 l. Reasons of the slowness of progress of discovery in mind and matter? But the causes of these difficulties are also the sources of analytic science? 54 u. Hence our proudest discoveries are proofs of our weakness? 54 m. *Twofold office of intellectual analysis?* Why is man the glory, jest, [illegible] of [illegible] [illegible]? [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]? [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] respecting the [illegible] of [illegible]? [illegible] Their view of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Reid's [illegible]? [illegible] Brown's argument [illegible] [illegible]? [illegible] Source of confusion between [illegible] and memory? [illegible] application of the term [illegible] [illegible] [illegible]? [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]? 12 l. Reid's distinction between [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]? [illegible]

Individuating the unity and identity of the thinking principle affords a strong argument against the materialists? [illegible] Personal identity [illegible] appropriate [illegible] —? Why? [illegible] Reid's [illegible] maxim of Locke? 63 l. Des Cartes' argument? Shaftesbury's objection to the proof of identity? 64 l. Psychological test of identity? Twofold application of the test of mental identity by sceptics? Their objections against the identity of the mind? 66 m. Answers to both? 77 u.

The evidence of mental identity is twofold? 66 m. There must be maxims of intuitive belief? 67 u. Priestley's error respecting them? Reid's? 68 u. The errors of both exposed? 69 l. *Evil tendency of Reid's philosophy similar to that of the dogmatists?* Ill results from multiplying unnecessarily these principles? 68 m. The use of these principles is twofold? 69 l. Criterions of them? 70 m. Unde erratica fluxit sententia nexus inseparabilis inter veritatem et ratiocinium? *How did Reid correct this opinion?* 68 u. Why have these principles been overlooked? 70 l. *Positive evidence of mental identity a good test?* 71 u. It is not from reasoning? 71 m. It is the first of our intuitive principles in importance and order? 71 l. To what source can we trace this belief? 72 u. (n. b. It is involved *in* memory; but does not arise *from* memory, as it is involved in demonstration, but does not depend on demonstration; it really arises from the mere impossibility of disbelieving it (see page 67). Negative evidence of mental identity? 73 m. Whence does mental philosophy receive a taint? and why? 73 l. The objections against mental identity in the diversity of states of mind, whence? 74 l. The Pyrrhonistic test is not true even in matter? 75 m. Semi-materialism what? 78 u. Its source? 77 l. Examples? 78 m. *How far does Brown claim originality in his doctrine of mental identity? And how does he shew the value of this addition?* 77 l. Locke's opinion of personal identity? *He is inconsistent in maintaining that the soul thinks not always? Defect of Locke's criterion of personal identity?* 79 m. Reid's refutation of Locke's doctrine? 79 l. Source of Locke's paradox? 80 l. Peculiar difficulty in the classification of mental phenomena? 82 l. Process of gradual generalization? 83 u. The best classification of mental phenomena is not founded on the most obvious relations? 84 u. 83 l. *How does Brown correct the ancient divisions of the phenomena of mind? Two ancient classifications? Their defects?* Liable to the same objections the one as the other? 84 l. 85 m. Motives which induced Brown to attempt a new classification? 86 m. *A new principle of classification would not be useless, even though not more precise or comprehensive than those hitherto used?* 87 u. *Both Locke and Brown divide our ideas with respect to their causes, but in different senses of the word cause?* 88 m. (Locke considers the causes as positive and privative.) Difference between 'affection of mind' and state of mind? 89 l. Divisionem intellectualium phœnomenorum unde derivat Brown? *Locke, in explaining his definition of reflection, appears to have suggested Brown's division of the internal affections? Brown, in his classification of mental phenomena, nearly agrees with Locke?* 90 u. (Locke tells us that in his definition of reflection, he uses the term 'operations' in a large sense, as comprehending not barely *the actions of the mind* about its ideas, but some sort of passions arising from them such as is the *satisfaction or uneasiness* arising from any thought.) Brown's classification of the mental phenomena? 89 u. *Subdivision of each class?* 90 u. 'Emotions,' a term preferable to active powers? 90 u. *Distinguish between pleasures of sense and emotions?* 91 n. *Also between intellectual states and Emotions?* 91 u. Definition of emotions? 91 m. External affections comprehend? 94 m. 96 u. Analysis of Appetites? 94 m. Sensations defined? 95 u. Rude elements of all knowledge? 96 m. Assumptions made in this definition? 96 l. *Advantages and disadvantages of experience to analysis of our original perceptions of sense?* 97 m. 98 u. *One science is independent of the variety of senses?* 99 l. Reid's division of sensations? 99 l. Use of *indifferent* sensations? Exemplified by Reid? By Brown? 100 m. That mind and matter should mutually affect each other, is not peculiarly mysterious? 103 m. Erroneous distinction of the mode of action of external causes in different orders of sensation? 105 l. *Reid has given a futile division of our sensations from a false view of the real objects of perception?* 105 l. Evil result from misconceiving the real external objects of sense? 105 l. Brown's theory for expressing the diversity of organic power in the perception of harmony? 110 m. 112. To what two classes does Brown reduce the information which we are supposed to receive primarily from touch? 116 u. To what sense does he attribute the feeling of resistance? 119. 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THE END.

ERRATA.

In page 5, line 5 from bottom, for *confirms* read *compares*.

In page 41, line 22 from top, for *vortices* read *ether*.

In page 25, line 28. It has been inadvertently said, that it is the business of the *analyst* to separate and arrange the assemblages of mental phenomena. It is the business of the *inquirer* to separate and arrange them—the office of analysis is to *trace* the states of mind that have successively contributed to form or modify any sentiment or emotion, and to *develope* the elements to which, after tracing this succession, the resulting sentiment or emotion is felt to bear virtually the relation of seeming comprehensiveness.

In page 295. Among the 'indirect influences' of the school logic, it has been omitted to mention the tendency which the mind acquired to apply many varieties of technical phraseology to the same proposition, so as to make many propositions of one, as if every repetition of it in another form of language were the enunciation of another truth.

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